

CCI

# API Reference

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# 1 Before You Start

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- [1.1 Overview](#)
- [1.2 API Calling](#)
- [1.3 Endpoints](#)
- [1.4 Constraints](#)
- [1.5 Concepts](#)
- [1.6 Selecting an API Type](#)

## 1.1 Overview

Welcome to *Cloud Container Instance API Reference*. CCI is a serverless container engine that allows you to run containers without creating or managing server clusters.

This document describes how to use application programming interfaces (APIs) to perform operations on CCI, such as creating or deleting workloads or modifying workload specifications.

If you plan to access CCI through an API, ensure that you are familiar with CCI concepts and learn basic Kubernetes knowledge. For details, see [Service Overview](#).

## 1.2 API Calling

CCI supports Representational State Transfer (REST) APIs, allowing you to call APIs using HTTPS. For details about API calling, see [2 Calling APIs](#).

## 1.3 Endpoints

An endpoint is the **request address** for calling an API. Endpoints vary depending on services and regions. For the endpoints of all services, see [Regions and Endpoints](#).

## 1.4 Constraints

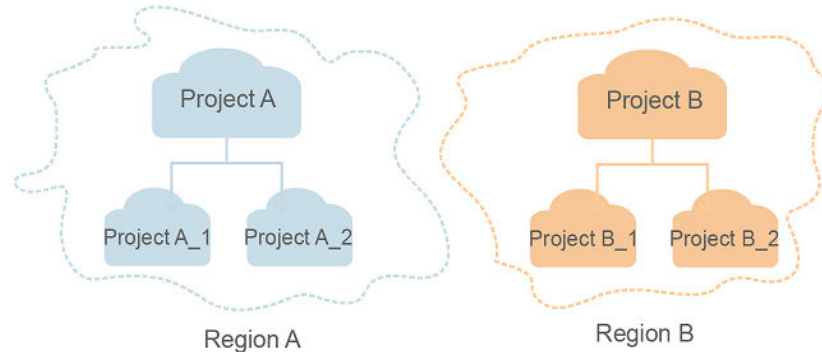
- The number of CCI instances that you can create is determined by your quota. For details, see [Service Quota](#). For details about how to increase quotas, see [Quotas](#).
- For more constraints, see API description.

## 1.5 Concepts

- Account  
An account is created upon successful signing up. The account has full access permissions for all of its cloud services and resources. It can be used to reset user passwords and grant user permissions. The account is a payment entity, which should not be used directly to perform routine management. For security purposes, create Identity and Access Management (IAM) users and grant them permissions for routine management.
- User  
An IAM user is created by an account in IAM to use cloud services. Each IAM user has its own identity credentials (password and access keys).  
API authentication requires information such as the account name, username, and password.
- Region  
Regions are divided based on geographical location and network latency. Public services, such as Elastic Cloud Server (ECS), Elastic Volume Service (EVS), Object Storage Service (OBS), Virtual Private Cloud (VPC), Elastic IP (EIP), and Image Management Service (IMS), are shared within the same region. Regions are classified into universal regions and dedicated regions. A universal region provides universal cloud services for common tenants. A dedicated region provides specific services for specific tenants.  
For details, see [Region and AZ](#).
- AZ  
An AZ comprises of one or more physical data centers equipped with independent ventilation, fire, water, and electricity facilities. Computing, network, storage, and other resources in an AZ are logically divided into multiple clusters. AZs within a region are interconnected using high-speed optical fibers to allow you to build cross-AZ high-availability systems.
- Project  
A project corresponds to a region. Default projects are defined to group and physically isolate resources (including computing, storage, and network resources) across regions. Users can be granted permissions in a default project to access all resources under their accounts in the region associated with the project. If you need more refined access control, create subprojects under a default project and create resources in subprojects. Then you can

assign users the permissions required to access only the resources in the specific subprojects.

**Figure 1-1** Project isolation model



- Enterprise project  
Enterprise projects group and manage resources across regions. Resources in different enterprise projects are logically isolated. An enterprise project can contain resources of multiple projects, and resources can be added to or removed from enterprise projects.  
For details about enterprise projects and about how to obtain enterprise project IDs, see [Enterprise Management User Guide](#).

## 1.6 Selecting an API Type

CCI provides [Kubernetes APIs](#) that comply with the latest version of the Kubernetes community. It also provides [Kubernetes APIs \(Old Versions\)](#).

You are advised to use Kubernetes-native APIs to better meet your requirements.



# 2 Calling APIs

## 2.1 Making an API Request

### 2.2 Authentication

### 2.3 Response

## 2.1 Making an API Request

This section describes the structure of a REST API request, and uses the IAM API for [creating an IAM User](#) as an example to demonstrate how to call an API. The obtained token can then be used to authenticate the calling of other APIs.

### Request URI

A request URI is in the following format:

**{URI-scheme}://{Endpoint}/{resource-path}?{query-string}**

Although a request URI is included in the request header, most programming languages or frameworks require the request URI to be transmitted separately.

**Table 2-1** URI parameter description

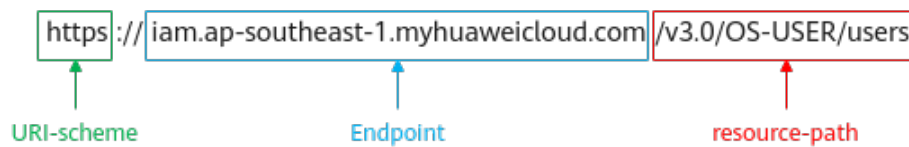
Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use HTTPS.
Endpoint	Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from <a href="#">Regions and Endpoints</a> . For example, the endpoint of IAM in region <b>CN-Hong Kong</b> is <b>iam.ap-southeast-1.myhuaweicloud.com</b> .
resource-path	Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the <b>resource-path</b> of the API used to obtain a user token is <b>/v3/auth/tokens</b> .

Parameter	Description
query-string	Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of <i>Parameter name=Parameter value</i> . For example, <b>?limit=10</b> indicates that a maximum of 10 data records will be displayed.

For example, to obtain an IAM token in **CN-Hong Kong**, obtain the endpoint of IAM (iam.ap-southeast-1.myhuaweicloud.com) for this region and the resource-path (/v3.0/OS-USER/users) in the URI of the API for **creating an IAM user**. Then, construct the URI as follows:

`https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users`

**Figure 2-1** Example URI



**NOTE**

To simplify the URI display in this document, each API is provided only with a **resource-path** and a request method. The **URI-scheme** of all APIs is **HTTPS**, and the endpoints of all APIs in the same region are identical.

## Request Methods

The HTTP protocol defines the following request methods that can be used to send a request to the server.

**Table 2-2** HTTP methods

Method	Description
GET	Requests the server to return specified resources.
PUT	Requests the server to update specified resources.
POST	Requests the server to add resources or perform special operations.
DELETE	Requests the server to delete specified resources, for example, an object.
HEAD	Same as GET except that the server must return only the response header.

Method	Description
PATCH	Requests the server to update partial content of a specified resource. If the resource does not exist, a new resource will be created.

For example, in the case of the API for [creating an IAM user](#), the request method is **POST**. An example request is as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
```

## Request Header

You can also add additional header fields to a request, such as the fields required by a specified URI or HTTP method. For example, to request for the authentication information, add **Content-Type**, which specifies the request body type.

Common request header fields are as follows.

**Table 2-3** Common request header fields

Parameter	Description	Mandatory	Example Value
Host	Specifies the server domain name and port number of the resources being requested. The value can be obtained from the URL of the service API. The value is in the format of <i>Hostname:Port number</i> . If the port number is not specified, the default port is used. The default port number for <b>https</b> is <b>443</b> .	No This field is mandatory for AK/SK authentication.	code.test.com or code.test.com:443
Content-Type	Specifies the type (or format) of the message body. The default value <b>application/json</b> is recommended. Other values of this field will be provided for specific APIs if any.	Yes	application/json
Content-Length	Specifies the length of the request body. The unit is byte.	No	3495

Parameter	Description	Mandatory	Example Value
X-Project-Id	Specifies the project ID. Obtain the project ID by following the instructions in <a href="#">8.7 Obtaining a Project ID</a> .	No This field is mandatory for requests that use AK/SK authentication in the Dedicated Cloud (DeC) scenario or multi-project scenario.	e9993fc787d94b6c886cbaa340f9c0f4
X-Auth-Token	Specifies the user token. It is a response to the API for <a href="#">obtaining a user token</a> (This is the only API that does not require authentication). After the request is processed, the value of <b>X-Subject-Token</b> in the response header is the token value.	No This field is mandatory for token authentication.	The following is part of an example token: MIIPAgYJKoZlhvcNAQcCo...ggg1BBIINPXsidG9rZ

 **NOTE**

In addition to supporting authentication using tokens, APIs support authentication using AK/SK, which uses SDKs to sign a request. During the signature, the **Authorization** (signature authentication) and **X-Sdk-Date** (time when a request is sent) headers are automatically added in the request.

For more details, see "Authentication Using AK/SK" in [2.2 Authentication](#).

The following shows an example request of the API for [creating an IAM user](#) when AK/SK authentication is used:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
Content-Type: application/json
X-Sdk-Date: 20240416T095341Z
Authorization: SDK-HMAC-SHA256 Access=*****, SignedHeaders=content-type;host;x-sdk-date, Signature=*****
```

### (Optional) Request Body

This part is optional. A request body is generally sent in a structured format (for example, JSON or XML), which is specified by **Content-Type** in the request header. It is used to transfer content other than the request header. If the request body contains full-width characters, these characters must be coded in UTF-8.

The request body varies depending on APIs. Certain APIs do not require the request body, such as the APIs requested using the GET and DELETE methods.

The following shows an example request (a request body included) of the API for [creating an IAM user](#). You can learn about request parameters and related

description from this example. The bold parameters need to be replaced for a real request.

- **accountid**: account ID of an IAM user
- **username**: name of an IAM user
- **email**: email of an IAM user
- **password**: login password of an IAM user

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
Content-Type: application/json
X-Sdk-Date: 20240416T095341Z
Authorization: SDK-HMAC-SHA256 Access=*****, SignedHeaders=content-type;host;x-sdk-date,
Signature=*****

{
  "user": {
    "domain_id": "accountid",
    "name": "username",
    "password": "*****",
    "email": "email",
    "description": "IAM User Description"
  }
}
```

If all data required for the API request is available, you can send the request to call the API through [curl](#), [Postman](#), or coding. In the response to the API used to obtain a user token, **X-Subject-Token** is the desired user token. This token can then be used to authenticate the calling of other APIs.

## 2.2 Authentication

Requests for calling an API can be authenticated using either of the following methods:

- AK/SK authentication: Requests are encrypted using AK/SK pairs. AK/SK authentication is recommended because it is more secure than token authentication.
- Token authentication: Requests are authenticated using tokens.

### AK/SK Authentication

#### NOTE

AK/SK authentication supports API requests with a body not larger than 12 MB. For API requests with a larger body, token authentication is recommended.

In AK/SK authentication, AK/SK is used to sign requests and the signature is then added to the requests for authentication.

- AK: access key ID, which is a unique identifier used in conjunction with a secret access key to sign requests cryptographically.
- SK: secret access key, which is used in conjunction with an AK to sign requests cryptographically. It identifies a request sender and prevents the request from being modified.

In AK/SK authentication, you can use an AK/SK to sign requests based on the signature algorithm or using the signing SDK. For details about how to sign requests and use the signing SDK, see [API Request Signing Guide](#).

 NOTE

The signing SDK is only used for signing requests and is different from the SDKs provided by services.

## Token Authentication

 NOTE

The validity period of a token is 24 hours. When using a token for authentication, cache it to prevent frequently calling the IAM API used to obtain a user token.

A token specifies temporary permissions in a computer system. During API authentication using a token, the token is added to requests to get permissions for calling the API. You can obtain a token by calling the [Obtaining User Token](#) API.

IMS is a project-level service. When you call the API, set **auth.scope** in the request body to **project**.

```
{
  "auth": {
    "identity": {
      "methods": [
        "password"
      ],
      "password": {
        "user": {
          "name": "username", // IAM user name
          "password": $ADMIN_PASS, //IAM user password. You are advised to store it in ciphertext in
the configuration file or an environment variable and decrypt it when needed to ensure security.
          "domain": {
            "name": "domainname" // Name of the account to which the IAM user belongs
          }
        }
      }
    },
    "scope": {
      "project": {
        "name": "xxxxxxxx" // Project name
      }
    }
  }
}
```

After a token is obtained, the **X-Auth-Token** header field must be added to requests to specify the token when calling other APIs. For example, if the token is **ABCDEFJ....**, **X-Auth-Token: ABCDEFJ....** can be added to a request as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/projects
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

## 2.3 Response

### Status Code

After sending a request, you will receive a response, including a status code, response header, and response body.

A status code is a group of digits, ranging from 1xx to 5xx. It indicates the status of a request. For more information, see [8.5 Status Codes](#).

For example, if status code **201** is returned for calling the API used to **create an IAM user**, the request is successful.

## Response Header

Similar to a request, a response also has a header, for example, **Content-Type**.

**Figure 2-2** shows the response header fields for the API used to **create an IAM user**. The **X-Subject-Token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

### NOTE

For security purposes, you are advised to set the token in ciphertext in configuration files or environment variables and decrypt it when using it.

**Figure 2-2** Header fields of the response to the request for creating an IAM user

```
"X-Frame-Options": "SAMEORIGIN",
"X-IAM-ETag-id": "2562365939-d8f6f12921974cb097338ac11fceac8a",
"Transfer-Encoding": "chunked",
"Strict-Transport-Security": "max-age=31536000; includeSubdomains;",
"Server": "api-gateway",
"X-Request-Id": "af2953f2bcc67a42325a69a19e6c32a2",
"X-Content-Type-Options": "nosniff",
"Connection": "keep-alive",
"X-Download-Options": "noopen",
"X-XSS-Protection": "1; mode=block;",
"X-IAM-Trace-Id": "token_██████████_null_af2953f2bcc67a42325a69a19e6c32a2",
"Date": "Tue, 21 May 2024 09:03:40 GMT",
"Content-Type": "application/json; charset=utf8"
```

## (Optional) Response Body

The body of a response is often returned in a structured format (for example, JSON or XML) as specified in the **Content-Type** header field. The response body transfers content except the response header.

The following is part of the response body for the API used to **create an IAM user**.

```
{
  "user": {
    "id": "c131886aec...",
    "name": "IAMUser",
    "description": "IAM User Description",
    "areacode": "",
    "phone": "",
    "email": "***@***.com",
    "status": null,
    "enabled": true,
    "pwd_status": false,
    "access_mode": "default",
    "is_domain_owner": false,
    "xuser_id": "",
    "xuser_type": "",
    "password_expires_at": null,
    "create_time": "2024-05-21T09:03:41.000000",
    "domain_id": "d78cbac1.....",
    "xdomain_id": "30086000.....",
    "xdomain_type": "",
    "default_project_id": null
  }
}
```

```
}  
}
```

If an error occurs during API calling, an error code and a message will be displayed. The following shows an error response body.

```
{  
  "error_msg": "The request message format is invalid.",  
  "error_code": "IMG.0001"  
}
```

In the response body, **error\_code** is an error code, and **error\_msg** provides information about the error.



# 3 Getting Started

---

## Overview

This section describes the procedure of calling APIs to create a workload from an Nginx image.

The open source image Nginx is used. The container specifications are 0.25 vCPUs and 512 MB of memory, and the workload is associated with a load balancer to allow access from the Internet.

For details about how to call APIs, see [2 Calling APIs](#).

## Procedure

1. Call the API described in [Creating a Namespace](#) to create a namespace.
2. Call the API described in [Creating a Network](#) to create a network, and associate the network with a VPC and subnet.
3. Call the API described in [Creating a Deployment](#) to create an Nginx workload.

## Creating a Nginx Workload

- Step 1** Call the API described in [Creating a Namespace](#) to create a namespace of the GPU-accelerated type.

```
{
  "apiVersion": "v1",
  "kind": "Namespace",
  "metadata": {
    "name": "namespace-test",
    "annotations": {
      "namespace.kubernetes.io/flavor": "gpu-accelerated"
    }
  },
  "spec": {
    "finalizers": [
      "kubernetes"
    ]
  }
}
```

You must specify the following parameters:

- **name**: namespace name.
- **namespace.kubernetes.io/flavor**: namespace type. Currently, **gpu-accelerated** and **general-computing** are supported. GPUs can be used in namespaces of the GPU-accelerated type.

**Step 2** Call the API described in [Creating a Network](#) to create a network, and associate the network with a VPC and subnet.

```
{
  "apiVersion": "networking.cci.io/v1beta1",
  "kind": "Network",
  "metadata": {
    "name": "test-network",
    "annotations": {
      "network.alpha.kubernetes.io/default-security-group": "security-group-id",
      "network.alpha.kubernetes.io/domain-id": "domain-id",
      "network.alpha.kubernetes.io/project-id": "project-id"
    }
  },
  "spec": {
    "cidr": "192.168.0.0/24",
    "attachedVPC": "vpc-id",
    "networkID": "network-id",
    "subnetID": "subnet-id",
    "networkType": "underlay_neutron"
  }
}
```

You must specify the following parameters:

- **name**: name of a network object.
- **network.alpha.kubernetes.io/default-security-group**: security group ID, which can be obtained on the [Security Groups](#) page.
- **network.alpha.kubernetes.io/domain-id**: account ID, which can be obtained by following the procedure in [8.8 Obtaining an Account ID](#).
- **network.alpha.kubernetes.io/project-id**: project ID, which can be obtained by following the procedure in [8.7 Obtaining a Project ID](#).
- **cidr**: available subnet CIDR in a VPC.
- **attachedVPC**: ID of the VPC to which the namespace belongs, which can be obtained on the [Virtual Private Cloud](#) or by calling the API for [querying VPCs](#).
- **networkID**: network ID of a subnet in a VPC, which can be obtained on the [Virtual Private Cloud](#) page or by calling the API for [querying subnets](#).
- **subnetID**: ID of a subnet in a VPC, which can be obtained on the [Virtual Private Cloud](#) page or by calling the API for [querying subnets](#).

**Step 3** Call the API described in [Creating a Deployment](#) to create an Nginx workload.

In this example, a workload whose name is **nginx** and specifications are set to 0.25 vCPUs and 1 GB of memory is to be created from the open source image nginx:latest. After the API is called, CCI creates a container running nginx.

```
{
  "apiVersion": "apps/v1",
  "kind": "Deployment",
  "metadata": {
    "name": "nginx"
  },
  "spec": {
```

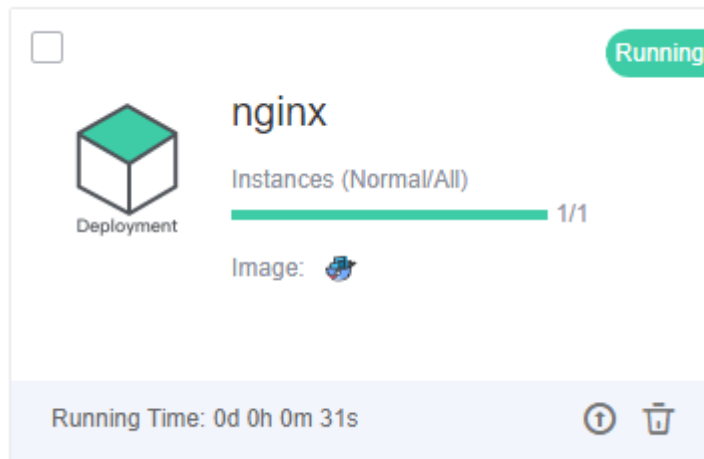
```
"replicas": 1,
"selector": {
  "matchLabels": {
    "app": "nginx"
  }
},
"template": {
  "metadata": {
    "labels": {
      "app": "nginx"
    }
  },
  "spec": {
    "containers": [
      {
        "image": "nginx:latest",
        "name": "container-0",
        "resources": {
          "limits": {
            "cpu": "250m",
            "memory": "1Gi"
          },
          "requests": {
            "cpu": "250m",
            "memory": "1Gi"
          }
        }
      }
    ],
    "imagePullSecrets": [
      {
        "name": "imagepull-secret"
      }
    ]
  }
}
}
```

You must specify the following parameters:

- **name:** Deployment name.
- **replicas:** pod quantity, that is, the number of pods under the Deployment.
- **selector.matchLabels:** labels that are used by the Deployment to select pods. In this example, **app** is set to **nginx** under labels. The pod that has such a label will be selected by the Deployment.
- **template:** pod template, which defines pod configurations and specifications.
  - **metadata.labels:** pod label.
  - **spec.containers:** definition of a container in the pod.
    - **image:** image used to create a container.
    - **resources.limits:** resource limit for a container, that is, the maximum number of resources that a container can use.
    - **resources.requests:** resource quantity requested by a container.

After the Nginx workload is created, you can view it on the CCI console.

**Figure 3-1** nginx



----End

# 4 Proprietary APIs

---

[4.1 Metrics](#)

[4.2 EIPPool](#)

[4.3 Network](#)

## 4.1 Metrics

### 4.1.1 Obtaining Metrics of All Pods in a Namespace

#### Function

This API is used to obtain metrics of all pods in a specified namespace.

#### URI

GET /apis/metrics.k8s.io/v1beta1/namespaces/{namespace}/pods

**Table 4-1** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 4-2** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>
pretty	No	String	If 'true', then the output is pretty printed.



Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.

## Request Parameters

**Table 4-3** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 4-4** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.metrics.pkg.apis.metrics.v1beta1.PodMetrics</a> objects	List of pod metrics.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta_v2</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>

**Table 4-5** io.k8s.metrics.pkg.apis.metrics.v1beta1.PodMetrics

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/api-conventions.md#resources</a>

Parameter	Type	Description
containers	Array of <a href="#">io.k8s.metrics.pkg.apis.metrics.v1beta1.ContainerMetrics</a> objects	Metrics for all containers are collected within the same time window.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta_v2</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
timestamp	String	The following fields define time interval from which metrics were collected from the interval [Timestamp-Window, Timestamp].
window	String	Duration is a wrapper around time.Duration which supports correct marshaling to YAML and JSON. In particular, it marshals into strings, which can be used as map keys in json.

**Table 4-6** io.k8s.metrics.pkg.apis.metrics.v1beta1.ContainerMetrics

Parameter	Type	Description
name	String	Container name corresponding to the one from pod.spec.containers.
usage	Map<String,String>	The memory usage is the memory working set.

**Table 4-7** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta\_v2

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata</a></p>
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed.</p>

Parameter	Type	Description
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/api-conventions.md#idempotency</a></p>
generation	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
initializers	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Initializers</a> object	<p>An initializer is a controller which enforces some system invariant at object creation time. This field is a list of initializers that have not yet acted on this object. If nil or empty, this object has been completely initialized. Otherwise, the object is considered uninitialized and is hidden (in list/watch and get calls) from clients that haven't explicitly asked to observe uninitialized objects.</p> <p>When an object is created, the system will populate this list with the current set of initializers. Only privileged users may set or modify this list. Once it is empty, it may not be modified further by any user.</p> <p>DEPRECATED - initializers are an alpha field and will be removed in v1.15.</p>
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Type	Description
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry_v2</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.  This field is alpha and can be changed or removed without notice.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference_v2</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-8** io.k8s.apimachinery.pkg.apis.meta.v1.Initializers

Parameter	Type	Description
pending	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Initializer</a> objects	Pending is a list of initializers that must execute in order before this object is visible. When the last pending initializer is removed, and no failing result is set, the initializers struct will be set to nil and the object is considered as initialized and visible to all clients.
result	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Status_v2</a> object	If result is set with the Failure field, the object will be persisted to storage and then deleted, ensuring that other clients can observe the deletion.



**Table 4-9** io.k8s.apimachinery.pkg.apis.meta.v1.Initializer

Parameter	Type	Description
name	String	name of the process that is responsible for initializing this object.

**Table 4-10** io.k8s.apimachinery.pkg.apis.meta.v1.Status\_v2

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails_v2</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta_v2</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.

Parameter	Type	Description
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/api-conventions.md#spec-and-status</a>

**Table 4-11** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails\_v2

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-12** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 4-13** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry\_v2

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fields	Object	Fields identifies a set of fields.
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-14** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference\_v2

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-15** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta\_v2

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "metrics.k8s.io/v1beta1",
  "items": [ {
    "containers": [ {
      "name": "container-0",
      "usage": {
        "cpu": "374598n",
        "cpu_accumulated": "127739654828n",
        "memory": "1540Ki",
        "memory_rss": "284Ki",
        "memory_usage": "1804Ki"
      }
    }
  ]},
  "metadata": {
    "creationTimestamp": "2023-03-28T11:24:34Z",
    "name": "cci-deployment-20233231-6c8d7f74f7-2t6k5",
    "namespace": "cci-namespace-13238101",
    "selfLink": "/apis/metrics.k8s.io/v1beta1/namespaces/cci-namespace-13238101/pods/cci-deployment-20233231-6c8d7f74f7-2t6k5"
  },
  "timestamp": "2023-03-28T11:24:19Z",
  "window": "30s"
}, {
  "containers": [ {
    "name": "container-0",
    "usage": {
      "cpu": "0",
      "cpu_accumulated": "75422933n",
      "memory": "6236Ki",
      "memory_rss": "1644Ki",
      "memory_usage": "12308Ki"
    }
  }
  ]},
  "metadata": {
    "creationTimestamp": "2023-03-28T11:24:34Z",
```

```

"name" : "cci-deployment-687-1678883958925-599b74469b-7bmqh",
"namespace" : "cci-namespace-13238101",
"selfLink" : "/apis/metrics.k8s.io/v1beta1/namespaces/cci-namespace-13238101/pods/cci-
deployment-687-1678883958925-599b74469b-7bmqh"
},
"timestamp" : "2023-03-28T11:24:15Z",
"window" : "30s"
}],
"kind" : "PodMetricsList",
"metadata" : {
"selfLink" : "/apis/metrics.k8s.io/v1beta1/namespaces/cci-namespace-13238101/pods"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

### 4.1.2 Obtaining Metrics of a Pod

#### Function

This API is used to obtain metrics of a specified pod in a specified namespace.

#### URI

GET /apis/metrics.k8s.io/v1beta1/namespaces/{namespace}/pods/{name}

**Table 4-16** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the PodMetrics
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 4-17** Query Parameters

Parameter	Mandatory	Type	Description
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 4-18** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

**Status code: 200**

**Table 4-19** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/api-conventions.md#resources</a>

Parameter	Type	Description
containers	Array of <a href="#">io.k8s.metrics.pkg.apis.metrics.v1beta1.ContainerMetrics</a> objects	Metrics for all containers are collected within the same time window.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta_v2</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
timestamp	String	The following fields define time interval from which metrics were collected from the interval [Timestamp-Window, Timestamp].
window	String	Duration is a wrapper around time.Duration which supports correct marshaling to YAML and JSON. In particular, it marshals into strings, which can be used as map keys in json.

**Table 4-20** io.k8s.metrics.pkg.apis.metrics.v1beta1.ContainerMetrics

Parameter	Type	Description
name	String	Container name corresponding to the one from pod.spec.containers.
usage	Map<String,String>	The memory usage is the memory working set.



**Table 4-21** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta\_v2

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata</a></p>
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed.</p>

Parameter	Type	Description
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/api-conventions.md#idempotency</a></p>
generation	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
initializers	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Initializers</a> object	<p>An initializer is a controller which enforces some system invariant at object creation time. This field is a list of initializers that have not yet acted on this object. If nil or empty, this object has been completely initialized. Otherwise, the object is considered uninitialized and is hidden (in list/watch and get calls) from clients that haven't explicitly asked to observe uninitialized objects.</p> <p>When an object is created, the system will populate this list with the current set of initializers. Only privileged users may set or modify this list. Once it is empty, it may not be modified further by any user.</p> <p>DEPRECATED - initializers are an alpha field and will be removed in v1.15.</p>
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Type	Description
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry_v2</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.  This field is alpha and can be changed or removed without notice.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference_v2</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-22** io.k8s.apimachinery.pkg.apis.meta.v1.Initializers

Parameter	Type	Description
pending	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Initializer</a> objects	Pending is a list of initializers that must execute in order before this object is visible. When the last pending initializer is removed, and no failing result is set, the initializers struct will be set to nil and the object is considered as initialized and visible to all clients.
result	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Status_v2</a> object	If result is set with the Failure field, the object will be persisted to storage and then deleted, ensuring that other clients can observe the deletion.

**Table 4-23** io.k8s.apimachinery.pkg.apis.meta.v1.Initializer

Parameter	Type	Description
name	String	name of the process that is responsible for initializing this object.

**Table 4-24** io.k8s.apimachinery.pkg.apis.meta.v1.Status\_v2

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails_v2</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta_v2</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.

Parameter	Type	Description
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/api-conventions.md#spec-and-status</a>

**Table 4-25** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails\_v2

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-26** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 4-27** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta\_v2

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/api-conventions.md#concurrency-control-and-consistency</a>



Parameter	Type	Description
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only.

**Table 4-28** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry\_v2

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fields	Object	Fields identifies a set of fields.
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-29** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference\_v2

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "metrics.k8s.io/v1beta1",
  "containers": [ {
    "name": "container-0",
    "usage": {
      "cpu": "353450n",
      "cpu_accumulated": "127810375798n",
      "memory": "1560Ki",
      "memory_rss": "284Ki",
      "memory_usage": "1824Ki"
    }
  } ],
  "kind": "PodMetrics",
  "metadata": {
    "creationTimestamp": "2023-03-28T11:28:23Z",
    "name": "cci-deployment-20233231-6c8d7f74f7-2t6k5",
    "namespace": "cci-namespace-13238101",
    "selfLink": "/apis/metrics.k8s.io/v1beta1/namespaces/cci-namespace-13238101/pods/cci-deployment-20233231-6c8d7f74f7-2t6k5"
  },
  "timestamp": "2023-03-28T11:28:02Z",
  "window": "30s"
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound

Status Code	Description
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 4.2 EIPPool

### 4.2.1 Querying EIP Pools in a Namespace

#### Function

This API is used to query details about all EIP Pools in a specified namespace.

#### URI

GET /apis/crd.yangtse.cni/v1/namespaces/{namespace}/eippools

**Table 4-30** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 4-31** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 4-32** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 4-33** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">cni.yangtse.com.v1.EIPPool</a> objects	List of eippools. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>



**Table 4-34** cni.yangtse.crd.v1.EIPPool

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">spec</a> object	Specification of the EIPPool.
status	<a href="#">status</a> object	Status of the EIPPool.

**Table 4-35** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-36** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-37** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-38** spec

Parameter	Type	Description
amount	Integer	Amount is the amount of eips need to be create. Minimum: <b>0</b> Maximum: <b>500</b>

Parameter	Type	Description
eipAttributes	<a href="#">cni.yangtse.crd.v1.EIPAttributes</a> object	Attributes is the eip attributes which used to create eip.
eips	Array of strings	EIPs used to generate EIP resources.

**Table 4-39** cni.yangtse.crd.v1.EIPAttributes

Parameter	Type	Description
alias	String	Alias of PublicIP
bandwidth	<a href="#">cni.yangtse.crd.v1.EIPBandwidth</a> object	Bandwidth create attributes
ipVersion	Integer	IP Version of PublicIP Enumeration values: <ul style="list-style-type: none"> <li>• 4</li> <li>• 6</li> </ul>
networkType	String	Network Type of PublicIP

**Table 4-40** cni.yangtse.crd.v1.EIPBandwidth

Parameter	Type	Description
chargeMode	String	Bandwidth Charge Mode Enumeration values: <ul style="list-style-type: none"> <li>• <b>bandwidth</b></li> <li>• <b>traffic</b></li> </ul>
id	String	Bandwidth id, only useful for WHOLE bandwidth share type
name	String	Bandwidth name, only useful for PER bandwidth share type Minimum: <b>1</b> Maximum: <b>64</b>
shareType	String	Bandwidth Share Type Enumeration values: <ul style="list-style-type: none"> <li>• <b>PER</b></li> <li>• <b>WHOLE</b></li> </ul>

Parameter	Type	Description
size	Integer	Bandwidth size Minimum: <b>0</b> Maximum: <b>200000</b>

**Table 4-41** status

Parameter	Type	Description
associates	Map<String, <a href="#">cni.yangtse.crd.v1.EIPAssociate</a> >	eip associate infos.
eips	Array of <a href="#">eips</a> objects	EIPs is a set of generated EIP resources.
usage	String	Usage is usage of eip in this pool, e.g. 2/10.

**Table 4-42** cni.yangtse.crd.v1.EIPAssociate

Parameter	Type	Description
attachment	<a href="#">attachment</a> object	Attachment is the eip attachment info.
privateIP	<a href="#">privateIP</a> object	PrivateIP is private ip information

**Table 4-43** attachment

Parameter	Type	Description
freeTimestamp	String	Timestamp of NeutronPort be to FixedPreBound or FixedUnBound phase
neutronPortName	String	NeutronPortName is NeutronPort name which associated.
neutronPortNamespace	String	NeutronPortNamespace is NeutronPort namespace which associated.
nodeName	String	nodeName is node name where the NeutronPort resides, must with phase Bound, PreBound or FixedBound.
podName	String	Pod name



Parameter	Type	Description
podNamespace	String	Pod Namespace

**Table 4-44** privateIP

Parameter	Type	Description
id	String	Port ID or EIP ID
ipv4	String	IPv4 is the IPv4 address for traffic from the eni.
ipv6	String	IPv6 is the IPv6 address for traffic from the eni.
mac	String	MAC is the MAC address of the endpoint interface.
status	String	Status of this IP

**Table 4-45** eips

Parameter	Type	Description
alias	String	Alias of the PublicIP
associateInstanceId	String	Associate instance id
associateInstanceType	String	Associate instance type
bandwidthChargeMode	String	Bandwidth charge mode of the PublicIP
bandwidthShareType	String	Bandwidth share type of the PublicIP
bandwidthSize	Integer	Bandwidth size of the PublicIP
id	String	The ID of the PublicIP
ipv4	String	The ipv4 address of the PublicIP
ipv6	String	The ipv6 address of the PublicIP
networkType	String	Network Type of PublicIP
status	String	PublicIP status

**Table 4-46** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion" : "crd.yangtse.cni/v1",
  "items" : {
    "apiVersion" : "crd.yangtse.cni/v1",
    "kind" : "EIPPool",
    "metadata" : {
      "creationTimestamp" : "2022-09-07T01:22:50Z",
      "finalizers" : [ "yangtse.io/eip-pool" ],
      "generation" : 1,
      "name" : "eippool-test",
      "namespace" : "namespace-test",
      "resourceVersion" : "42396258",
      "selfLink" : "/apis/crd.yangtse.cni/v1/namespaces/namespace-test/eippools/eippool-test",
      "uid" : "e4dc5432-1d9b-4fcb-8840-ee445b6511ae"
    },
    "spec" : {
      "amount" : 1,
      "eipAttributes" : {
        "bandwidth" : {
          "chargeMode" : "bandwidth",
          "name" : "eip-test",
          "shareType" : "PER",
          "size" : 5
        },
        "ipVersion" : 4,
        "networkType" : "5_g-vm"
      }
    },
    "status" : {
      "eips" : [ {
        "alias" : "eip-test",
        "bandWidthChargeMode" : "bandwidth",
        "bandwidthShareType" : "PER",
        "bandwidthSize" : 5,
        "id" : "034a0bae-81f7-46f4-b933-3273adc32b54",
        "ipv4" : "100.85.221.2",
        "networkType" : "5_g-vm",
        "status" : "DOWN"
      } ],
      "usage" : "0/1"
    }
  },
  "kind" : "EIPPoolList",
  "metadata" : {
    "continue" : "",
    "resourceVersion" : "42396272",
    "selfLink" : "/apis/crd.yangtse.cni/v1/namespaces/namespace-test/eippools"
  }
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 4.2.2 Creating an EIPPool

### Function

This API is used to create an EIPPool.

### URI

POST /apis/crd.yangtse.cni/v1/namespaces/{namespace}/eippools

**Table 4-47** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 4-48** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 4-49** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 4-50** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">spec</a> object	Specification of the EIPPool.
status	No	<a href="#">status</a> object	Status of the EIPPool.

**Table 4-51** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Mandatory	Type	Description
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>



Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 4-52** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-53** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-54** spec

Parameter	Mandatory	Type	Description
amount	No	Integer	Amount is the amount of eips need to be create. Minimum: <b>0</b> Maximum: <b>500</b>
eipAttributes	No	<a href="#">cni.yangtse.crd.v1.EIPAttributes</a> object	Attributes is the eip attributes which used to create eip.
eips	No	Array of strings	EIPs used to generate EIP resources.

**Table 4-55** cni.yangtse.crd.v1.EIPAttributes

Parameter	Mandatory	Type	Description
alias	No	String	Alias of PublicIP
bandwidth	Yes	<a href="#">cni.yangtse.crd.v1.EIPBandwidth</a> object	Bandwidth create attributes
ipVersion	No	Integer	IP Version of PublicIP Enumeration values: <ul style="list-style-type: none"> <li>• <b>4</b></li> <li>• <b>6</b></li> </ul>
networkType	Yes	String	Network Type of PublicIP

**Table 4-56** cni.yangtse.crd.v1.EIPBandwidth

Parameter	Mandatory	Type	Description
chargeMode	No	String	Bandwidth Charge Mode Enumeration values: <ul style="list-style-type: none"> <li>• <b>bandwidth</b></li> <li>• <b>traffic</b></li> </ul>
id	No	String	Bandwidth id, only useful for WHOLE bandwidth share type
name	No	String	Bandwidth name, only useful for PER bandwidth share type Minimum: <b>1</b> Maximum: <b>64</b>
shareType	No	String	Bandwidth Share Type Enumeration values: <ul style="list-style-type: none"> <li>• <b>PER</b></li> <li>• <b>WHOLE</b></li> </ul>
size	No	Integer	Bandwidth size Minimum: <b>0</b> Maximum: <b>200000</b>

**Table 4-57** status

Parameter	Mandatory	Type	Description
associates	No	Map<String,c ni.yangtse.crd.v1.EIPAssociate>	eip associate infos.
eips	No	Array of eips objects	EIPs is a set of generated EIP resources.
usage	No	String	Usage is usage of eip in this pool, e.g. 2/10.

**Table 4-58** cni.yangtse.crd.v1.EIPAssociate

Parameter	Mandatory	Type	Description
attachment	No	attachment object	Attachment is the eip attachment info.
privateIP	No	privateIP object	PrivateIP is private ip information

**Table 4-59** attachment

Parameter	Mandatory	Type	Description
freeTimestamp	No	String	Timestamp of NeutronPort be to FixedPreBound or FixedUnBound phase
neutronPortName	No	String	NeutronPortName is NeutronPort name which associated.
neutronPortNamespace	No	String	NeutronPortNamespace is NeutronPort namespace which associated.
nodeName	No	String	nodeName is node name where the NeutronPort resides, must with phase Bound, PreBound or FixedBound.
podName	No	String	Pod name
podNamespace	No	String	Pod Namespace



**Table 4-60** privateIP

Parameter	Mandatory	Type	Description
id	No	String	Port ID or EIP ID
ipv4	No	String	IPv4 is the IPv4 address for traffic from the eni.
ipv6	No	String	IPv6 is the IPv6 address for traffic from the eni.
mac	No	String	MAC is the MAC address of the endpoint interface.
status	No	String	Status of this IP

**Table 4-61** eips

Parameter	Mandatory	Type	Description
alias	No	String	Alias of the PublicIP
associateInstanceID	No	String	Associate instance id
associateInstanceType	No	String	Associate instance type
bandwidthChargeMode	No	String	Bandwidth charge mode of the PublicIP
bandwidthShareType	No	String	Bandwidth share type of the PublicIP
bandwidthSize	No	Integer	Bandwidth size of the PublicIP
id	No	String	The ID of the PublicIP
ipv4	No	String	The ipv4 address of the PublicIP
ipv6	No	String	The ipv6 address of the PublicIP
networkType	No	String	Network Type of PublicIP
status	No	String	PublicIP status

## Response Parameters

Status code: 200

**Table 4-62** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">spec</a> object	Specification of the EIPPool.
status	<a href="#">status</a> object	Status of the EIPPool.

**Table 4-63** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-64** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-65** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-66** spec

Parameter	Type	Description
amount	Integer	Amount is the amount of eips need to be create. Minimum: <b>0</b> Maximum: <b>500</b>

Parameter	Type	Description
eipAttributes	<a href="#">cni.yangtse.crd.v1.EIPAttributes</a> object	Attributes is the eip attributes which used to create eip.
eips	Array of strings	EIPs used to generate EIP resources.

**Table 4-67** cni.yangtse.crd.v1.EIPAttributes

Parameter	Type	Description
alias	String	Alias of PublicIP
bandwidth	<a href="#">cni.yangtse.crd.v1.EIPBandwidth</a> object	Bandwidth create attributes
ipVersion	Integer	IP Version of PublicIP Enumeration values: <ul style="list-style-type: none"> <li>• 4</li> <li>• 6</li> </ul>
networkType	String	Network Type of PublicIP

**Table 4-68** cni.yangtse.crd.v1.EIPBandwidth

Parameter	Type	Description
chargeMode	String	Bandwidth Charge Mode Enumeration values: <ul style="list-style-type: none"> <li>• <b>bandwidth</b></li> <li>• <b>traffic</b></li> </ul>
id	String	Bandwidth id, only useful for WHOLE bandwidth share type
name	String	Bandwidth name, only useful for PER bandwidth share type Minimum: <b>1</b> Maximum: <b>64</b>
shareType	String	Bandwidth Share Type Enumeration values: <ul style="list-style-type: none"> <li>• <b>PER</b></li> <li>• <b>WHOLE</b></li> </ul>



Parameter	Type	Description
size	Integer	Bandwidth size Minimum: <b>0</b> Maximum: <b>200000</b>

**Table 4-69** status

Parameter	Type	Description
associates	Map<String, <a href="#">cni.yangtse.crd.v1.EIPAssociate</a> >	eip associate infos.
eips	Array of <a href="#">eips</a> objects	EIPs is a set of generated EIP resources.
usage	String	Usage is usage of eip in this pool, e.g. 2/10.

**Table 4-70** cni.yangtse.crd.v1.EIPAssociate

Parameter	Type	Description
attachment	<a href="#">attachment</a> object	Attachment is the eip attachment info.
privateIP	<a href="#">privateIP</a> object	PrivateIP is private ip information

**Table 4-71** attachment

Parameter	Type	Description
freeTimestamp	String	Timestamp of NeutronPort be to FixedPreBound or FixedUnBound phase
neutronPortName	String	NeutronPortName is NeutronPort name which associated.
neutronPortNamespace	String	NeutronPortNamespace is NeutronPort namespace which associated.
nodeName	String	nodeName is node name where the NeutronPort resides, must with phase Bound, PreBound or FixedBound.
podName	String	Pod name

Parameter	Type	Description
podNamespace	String	Pod Namespace

**Table 4-72** privateIP

Parameter	Type	Description
id	String	Port ID or EIP ID
ipv4	String	IPv4 is the IPv4 address for traffic from the eni.
ipv6	String	IPv6 is the IPv6 address for traffic from the eni.
mac	String	MAC is the MAC address of the endpoint interface.
status	String	Status of this IP

**Table 4-73** eips

Parameter	Type	Description
alias	String	Alias of the PublicIP
associateInstanceID	String	Associate instance id
associateInstanceType	String	Associate instance type
bandwidthChargeMode	String	Bandwidth charge mode of the PublicIP
bandwidthShareType	String	Bandwidth share type of the PublicIP
bandwidthSize	Integer	Bandwidth size of the PublicIP
id	String	The ID of the PublicIP
ipv4	String	The ipv4 address of the PublicIP
ipv6	String	The ipv6 address of the PublicIP
networkType	String	Network Type of PublicIP
status	String	PublicIP status

**Status code: 201**

**Table 4-74** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">spec</a> object	Specification of the EIPPool.
status	<a href="#">status</a> object	Status of the EIPPool.

**Table 4-75** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 4-76** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-77** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-78** spec

Parameter	Type	Description
amount	Integer	Amount is the amount of eips need to be create. Minimum: <b>0</b> Maximum: <b>500</b>



Parameter	Type	Description
eipAttributes	<a href="#">cni.yangtse.crd.v1.EIPAttributes</a> object	Attributes is the eip attributes which used to create eip.
eips	Array of strings	EIPs used to generate EIP resources.

**Table 4-79** cni.yangtse.crd.v1.EIPAttributes

Parameter	Type	Description
alias	String	Alias of PublicIP
bandwidth	<a href="#">cni.yangtse.crd.v1.EIPBandwidth</a> object	Bandwidth create attributes
ipVersion	Integer	IP Version of PublicIP Enumeration values: <ul style="list-style-type: none"> <li>• 4</li> <li>• 6</li> </ul>
networkType	String	Network Type of PublicIP

**Table 4-80** cni.yangtse.crd.v1.EIPBandwidth

Parameter	Type	Description
chargeMode	String	Bandwidth Charge Mode Enumeration values: <ul style="list-style-type: none"> <li>• <b>bandwidth</b></li> <li>• <b>traffic</b></li> </ul>
id	String	Bandwidth id, only useful for WHOLE bandwidth share type
name	String	Bandwidth name, only useful for PER bandwidth share type Minimum: <b>1</b> Maximum: <b>64</b>
shareType	String	Bandwidth Share Type Enumeration values: <ul style="list-style-type: none"> <li>• <b>PER</b></li> <li>• <b>WHOLE</b></li> </ul>

Parameter	Type	Description
size	Integer	Bandwidth size Minimum: <b>0</b> Maximum: <b>200000</b>

**Table 4-81** status

Parameter	Type	Description
associates	Map<String, <a href="#">cni.yangtse.crd.v1.EIPAssociate</a> >	eip associate infos.
eips	Array of <a href="#">eips</a> objects	EIPs is a set of generated EIP resources.
usage	String	Usage is usage of eip in this pool, e.g. 2/10.

**Table 4-82** cni.yangtse.crd.v1.EIPAssociate

Parameter	Type	Description
attachment	<a href="#">attachment</a> object	Attachment is the eip attachment info.
privateIP	<a href="#">privateIP</a> object	PrivateIP is private ip information

**Table 4-83** attachment

Parameter	Type	Description
freeTimestamp	String	Timestamp of NeutronPort be to FixedPreBound or FixedUnBound phase
neutronPortName	String	NeutronPortName is NeutronPort name which associated.
neutronPortNamespace	String	NeutronPortNamespace is NeutronPort namespace which associated.
nodeName	String	nodeName is node name where the NeutronPort resides, must with phase Bound, PreBound or FixedBound.
podName	String	Pod name

Parameter	Type	Description
podNamespace	String	Pod Namespace

**Table 4-84** privateIP

Parameter	Type	Description
id	String	Port ID or EIP ID
ipv4	String	IPv4 is the IPv4 address for traffic from the eni.
ipv6	String	IPv6 is the IPv6 address for traffic from the eni.
mac	String	MAC is the MAC address of the endpoint interface.
status	String	Status of this IP

**Table 4-85** eips

Parameter	Type	Description
alias	String	Alias of the PublicIP
associateInstanceID	String	Associate instance id
associateInstanceType	String	Associate instance type
bandwidthChargeMode	String	Bandwidth charge mode of the PublicIP
bandwidthShareType	String	Bandwidth share type of the PublicIP
bandwidthSize	Integer	Bandwidth size of the PublicIP
id	String	The ID of the PublicIP
ipv4	String	The ipv4 address of the PublicIP
ipv6	String	The ipv6 address of the PublicIP
networkType	String	Network Type of PublicIP
status	String	PublicIP status

**Status code: 202**

**Table 4-86** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">spec</a> object	Specification of the EIPPool.
status	<a href="#">status</a> object	Status of the EIPPool.

**Table 4-87** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 4-88** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>



Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-89** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-90** spec

Parameter	Type	Description
amount	Integer	Amount is the amount of eips need to be create. Minimum: <b>0</b> Maximum: <b>500</b>

Parameter	Type	Description
eipAttributes	<a href="#">cni.yangtse.crd.v1.EIPAttributes</a> object	Attributes is the eip attributes which used to create eip.
eips	Array of strings	EIPs used to generate EIP resources.

**Table 4-91** cni.yangtse.crd.v1.EIPAttributes

Parameter	Type	Description
alias	String	Alias of PublicIP
bandwidth	<a href="#">cni.yangtse.crd.v1.EIPBandwidth</a> object	Bandwidth create attributes
ipVersion	Integer	IP Version of PublicIP Enumeration values: <ul style="list-style-type: none"> <li>• 4</li> <li>• 6</li> </ul>
networkType	String	Network Type of PublicIP

**Table 4-92** cni.yangtse.crd.v1.EIPBandwidth

Parameter	Type	Description
chargeMode	String	Bandwidth Charge Mode Enumeration values: <ul style="list-style-type: none"> <li>• <b>bandwidth</b></li> <li>• <b>traffic</b></li> </ul>
id	String	Bandwidth id, only useful for WHOLE bandwidth share type
name	String	Bandwidth name, only useful for PER bandwidth share type Minimum: <b>1</b> Maximum: <b>64</b>
shareType	String	Bandwidth Share Type Enumeration values: <ul style="list-style-type: none"> <li>• <b>PER</b></li> <li>• <b>WHOLE</b></li> </ul>

Parameter	Type	Description
size	Integer	Bandwidth size Minimum: <b>0</b> Maximum: <b>200000</b>

**Table 4-93** status

Parameter	Type	Description
associates	Map<String, <a href="#">cni.yangtse.crd.v1.EIPAssociate</a> >	eip associate infos.
eips	Array of <a href="#">eips</a> objects	EIPs is a set of generated EIP resources.
usage	String	Usage is usage of eip in this pool, e.g. 2/10.

**Table 4-94** cni.yangtse.crd.v1.EIPAssociate

Parameter	Type	Description
attachment	<a href="#">attachment</a> object	Attachment is the eip attachment info.
privateIP	<a href="#">privateIP</a> object	PrivateIP is private ip information

**Table 4-95** attachment

Parameter	Type	Description
freeTimestamp	String	Timestamp of NeutronPort be to FixedPreBound or FixedUnBound phase
neutronPortName	String	NeutronPortName is NeutronPort name which associated.
neutronPortNamespace	String	NeutronPortNamespace is NeutronPort namespace which associated.
nodeName	String	nodeName is node name where the NeutronPort resides, must with phase Bound, PreBound or FixedBound.
podName	String	Pod name

Parameter	Type	Description
podNamespace	String	Pod Namespace

**Table 4-96** privateIP

Parameter	Type	Description
id	String	Port ID or EIP ID
ipv4	String	IPv4 is the IPv4 address for traffic from the eni.
ipv6	String	IPv6 is the IPv6 address for traffic from the eni.
mac	String	MAC is the MAC address of the endpoint interface.
status	String	Status of this IP

**Table 4-97** eips

Parameter	Type	Description
alias	String	Alias of the PublicIP
associateInstanceId	String	Associate instance id
associateInstanceType	String	Associate instance type
bandwidthChargeMode	String	Bandwidth charge mode of the PublicIP
bandwidthShareType	String	Bandwidth share type of the PublicIP
bandwidthSize	Integer	Bandwidth size of the PublicIP
id	String	The ID of the PublicIP
ipv4	String	The ipv4 address of the PublicIP
ipv6	String	The ipv6 address of the PublicIP
networkType	String	Network Type of PublicIP
status	String	PublicIP status

## Example Requests

Dynamically creating an EIPPool that uses dedicated bandwidth and has two EIPs

```
{
  "apiVersion": "crd.yangtse.cni/v1",
  "kind": "EIPPool",
  "metadata": {
    "name": "eippool-test"
  },
  "spec": {
    "amount": 2,
    "eipAttributes": {
      "bandwidth": {
        "chargeMode": "bandwidth",
        "name": "eippool-test",
        "shareType": "PER",
        "size": 5
      },
      "ipVersion": 4,
      "networkType": "5_g-vm"
    }
  }
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "apiVersion": "crd.yangtse.cni/v1",
  "kind": "EIPPool",
  "metadata": {
    "creationTimestamp": "2023-04-23T06:36:06Z",
    "generation": 1,
    "name": "eippool-test",
    "namespace": "auto-test-namespace",
    "resourceVersion": "290279663",
    "selfLink": "/apis/crd.yangtse.cni/v1/namespaces/auto-test-namespace/eippools/eippool-test",
    "uid": "446b63bb-c1f1-4eb2-8bdf-b77823881d37"
  },
  "spec": {
    "amount": 2,
    "eipAttributes": {
      "bandwidth": {
        "chargeMode": "bandwidth",
        "name": "eippool-test",
        "shareType": "PER",
        "size": 5
      },
      "ipVersion": 4,
      "networkType": "5_g-vm"
    }
  }
}
```

## Status Codes

Status Code	Description
200	OK

Status Code	Description
201	Created
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	AlreadyExists
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 4.2.3 Deleting an EIPPool

### Function

This API is used to delete a specified EIPPool.

### URI

DELETE /apis/crd.yangtse.cni/v1/namespaces/{namespace}/eippools/{name}

**Table 4-98** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the EIPPool
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 4-99** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.

Parameter	Mandatory	Type	Description
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 4-100** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>



**Table 4-101** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 4-102** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

**Status code: 200**

**Table 4-103** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 4-104** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-105** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional.  Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"

Parameter	Type	Description
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 4-106** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Status code: 202

Table 4-107 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 4-108** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>

Parameter	Type	Description
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-109** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 4-110** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.



Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

Deleting an EIPPool

```
{
  "apiVersion": "v1",
  "gracePeriodSeconds": 0,
  "kind": "DeleteOptions",
  "propagationPolicy": "Orphan"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "crd.yangtse.cni/v1",
```

```

"kind" : "EIPPool",
"metadata" : {
  "creationTimestamp" : "2022-09-07T01:22:50Z",
  "deletionGracePeriodSeconds" : 0,
  "deletionTimestamp" : "2022-09-07T01:22:59Z",
  "finalizers" : [ "yangtse.io/eip-pool" ],
  "generation" : 1,
  "name" : "eippool-test",
  "namespace" : "namespace-test",
  "resourceVersion" : "42396258",
  "selfLink" : "/apis/crd.yangtse.cni/v1/namespaces/namespace-test/eippools/eippool-test",
  "uid" : "e4dc5432-1d9b-4fcb-8840-ee445b6511ae"
},
"spec" : {
  "amount" : 1,
  "eipAttributes" : {
    "bandwidth" : {
      "chargeMode" : "bandwidth",
      "name" : "eip-test",
      "shareType" : "PER",
      "size" : 5
    },
    "ipVersion" : 4,
    "networkType" : "5_g-vm"
  }
},
"status" : {
  "eips" : [ {
    "alias" : "eip-test",
    "bandWidthChargeMode" : "bandwidth",
    "bandwidthShareType" : "PER",
    "bandwidthSize" : 5,
    "id" : "034a0bae-81f7-46f4-b933-3273adc32b54",
    "ipv4" : "100.85.221.2",
    "networkType" : "5_g-vm",
    "status" : "DOWN"
  } ],
  "usage" : "0/1"
}
}

```

## Status Codes

Status Code	Description
200	OK
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType

Status Code	Description
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 4.2.4 Querying an EIPPool

### Function

This API is used to query the details about a specified EIPPool.

### URI

GET /apis/crd.yangtse.cni/v1/namespaces/{namespace}/eippools/{name}

**Table 4-111** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the EIPPool
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 4-112** Query Parameters

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 4-113** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 4-114** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">spec</a> object	Specification of the EIPPool.
status	<a href="#">status</a> object	Status of the EIPPool.

**Table 4-115** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.



Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 4-116** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-117** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-118** spec

Parameter	Type	Description
amount	Integer	Amount is the amount of eips need to be create. Minimum: <b>0</b> Maximum: <b>500</b>

Parameter	Type	Description
eipAttributes	<a href="#">cni.yangtse.crd.v1.EIPAttributes</a> object	Attributes is the eip attributes which used to create eip.
eips	Array of strings	EIPs used to generate EIP resources.

**Table 4-119** cni.yangtse.crd.v1.EIPAttributes

Parameter	Type	Description
alias	String	Alias of PublicIP
bandwidth	<a href="#">cni.yangtse.crd.v1.EIPBandwidth</a> object	Bandwidth create attributes
ipVersion	Integer	IP Version of PublicIP Enumeration values: <ul style="list-style-type: none"> <li>• 4</li> <li>• 6</li> </ul>
networkType	String	Network Type of PublicIP

**Table 4-120** cni.yangtse.crd.v1.EIPBandwidth

Parameter	Type	Description
chargeMode	String	Bandwidth Charge Mode Enumeration values: <ul style="list-style-type: none"> <li>• <b>bandwidth</b></li> <li>• <b>traffic</b></li> </ul>
id	String	Bandwidth id, only useful for WHOLE bandwidth share type
name	String	Bandwidth name, only useful for PER bandwidth share type Minimum: <b>1</b> Maximum: <b>64</b>
shareType	String	Bandwidth Share Type Enumeration values: <ul style="list-style-type: none"> <li>• <b>PER</b></li> <li>• <b>WHOLE</b></li> </ul>

Parameter	Type	Description
size	Integer	Bandwidth size Minimum: <b>0</b> Maximum: <b>200000</b>

**Table 4-121** status

Parameter	Type	Description
associates	Map<String, <a href="#">cni.yangtse.crd.v1.EIPAssociate</a> >	eip associate infos.
eips	Array of <a href="#">eips</a> objects	EIPs is a set of generated EIP resources.
usage	String	Usage is usage of eip in this pool, e.g. 2/10.

**Table 4-122** cni.yangtse.crd.v1.EIPAssociate

Parameter	Type	Description
attachment	<a href="#">attachment</a> object	Attachment is the eip attachment info.
privateIP	<a href="#">privateIP</a> object	PrivateIP is private ip information

**Table 4-123** attachment

Parameter	Type	Description
freeTimestamp	String	Timestamp of NeutronPort be to FixedPreBound or FixedUnBound phase
neutronPortName	String	NeutronPortName is NeutronPort name which associated.
neutronPortNamespace	String	NeutronPortNamespace is NeutronPort namespace which associated.
nodeName	String	nodeName is node name where the NeutronPort resides, must with phase Bound, PreBound or FixedBound.
podName	String	Pod name

Parameter	Type	Description
podNamespace	String	Pod Namespace

**Table 4-124** privateIP

Parameter	Type	Description
id	String	Port ID or EIP ID
ipv4	String	IPv4 is the IPv4 address for traffic from the eni.
ipv6	String	IPv6 is the IPv6 address for traffic from the eni.
mac	String	MAC is the MAC address of the endpoint interface.
status	String	Status of this IP

**Table 4-125** eips

Parameter	Type	Description
alias	String	Alias of the PublicIP
associateInstanceId	String	Associate instance id
associateInstanceType	String	Associate instance type
bandwidthChargeMode	String	Bandwidth charge mode of the PublicIP
bandwidthShareType	String	Bandwidth share type of the PublicIP
bandwidthSize	Integer	Bandwidth size of the PublicIP
id	String	The ID of the PublicIP
ipv4	String	The ipv4 address of the PublicIP
ipv6	String	The ipv6 address of the PublicIP
networkType	String	Network Type of PublicIP
status	String	PublicIP status

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "crd.yangtse.cni/v1",
  "kind": "EIPPool",
  "metadata": {
    "creationTimestamp": "2022-09-07T01:22:50Z",
    "finalizers": [ "yangtse.io/eip-pool" ],
    "generation": 1,
    "name": "eippool-test",
    "namespace": "namespace-test",
    "resourceVersion": "42396258",
    "selfLink": "/apis/crd.yangtse.cni/v1/namespaces/namespace-test/eippools/eippool-test",
    "uid": "e4dc5432-1d9b-4fcb-8840-ee445b6511ae"
  },
  "spec": {
    "amount": 1,
    "eipAttributes": {
      "bandwidth": {
        "chargeMode": "bandwidth",
        "name": "eip-test",
        "shareType": "PER",
        "size": 5
      },
      "ipVersion": 4,
      "networkType": "5_g-vm"
    }
  },
  "status": {
    "eips": [ {
      "alias": "eip-test",
      "bandWidthChargeMode": "bandwidth",
      "bandwidthShareType": "PER",
      "bandwidthSize": 5,
      "id": "034a0bae-81f7-46f4-b933-3273adc32b54",
      "ipv4": "100.85.221.2",
      "networkType": "5_g-vm",
      "status": "DOWN"
    } ],
    "usage": "0/1"
  }
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden

Status Code	Description
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 4.2.5 Updating an EIPPool

### Function

This API is used to update an EIPPool.

### URI

PATCH /apis/crd.yangtse.cni/v1/namespaces/{namespace}/eippools/{name}

**Table 4-126** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the EIPPool
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 4-127** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 4-128** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.



Parameter	Mandatory	Type	Description
Content-Type	Yes	String	<p>Currently, three types of patch request methods are supported. For details, see "Update API Objects in Place Using kubectl patch" (<a href="https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/">https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/</a>).</p> <ul style="list-style-type: none"> <li>• <b>Json Patch, Content-Type: application/json-patch+json</b> As defined in RFC6902, Json Patch contains a series of operations on a JSON object. After receiving the object, the server applies the represented operations to the JSON object.</li> <li>• <b>Merge Patch, Content-Type: application/merge-patch+json</b> According to RFC 7386, Merge Patch contains some description of a JSON object. The JSON object is submitted to the server end and merges with the current object of the server end, which means to replace the list field of the current resource object to form a new object.</li> <li>• <b>Strategic Merge Patch, Content-Type: application/strategic-merge-patch+json</b> Strategic Merge Patch is used to add legal metadata to API objects and uses new metadata to determine which lists should be merged and which ones should not. The current metadata is used as the structure labels.</li> </ul>

**Table 4-129** Request body parameters

Parameter	Mandatory	Type	Description
-	Yes	Object	Patch is provided to give a concrete name and type to the Kubernetes PATCH request body.

## Response Parameters

Status code: 200

**Table 4-130** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">spec</a> object	Specification of the EIPPool.
status	<a href="#">status</a> object	Status of the EIPPool.

**Table 4-131** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.
generateName	String	GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.  If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).  Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a>
generation	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-132** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-133** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-134** spec

Parameter	Type	Description
amount	Integer	Amount is the amount of eips need to be create. Minimum: <b>0</b> Maximum: <b>500</b>



Parameter	Type	Description
eipAttributes	<a href="#">cni.yangtse.crd.v1.EIPAttributes</a> object	Attributes is the eip attributes which used to create eip.
eips	Array of strings	EIPs used to generate EIP resources.

**Table 4-135** cni.yangtse.crd.v1.EIPAttributes

Parameter	Type	Description
alias	String	Alias of PublicIP
bandwidth	<a href="#">cni.yangtse.crd.v1.EIPBandwidth</a> object	Bandwidth create attributes
ipVersion	Integer	IP Version of PublicIP Enumeration values: <ul style="list-style-type: none"> <li>• 4</li> <li>• 6</li> </ul>
networkType	String	Network Type of PublicIP

**Table 4-136** cni.yangtse.crd.v1.EIPBandwidth

Parameter	Type	Description
chargeMode	String	Bandwidth Charge Mode Enumeration values: <ul style="list-style-type: none"> <li>• <b>bandwidth</b></li> <li>• <b>traffic</b></li> </ul>
id	String	Bandwidth id, only useful for WHOLE bandwidth share type
name	String	Bandwidth name, only useful for PER bandwidth share type Minimum: <b>1</b> Maximum: <b>64</b>
shareType	String	Bandwidth Share Type Enumeration values: <ul style="list-style-type: none"> <li>• <b>PER</b></li> <li>• <b>WHOLE</b></li> </ul>

Parameter	Type	Description
size	Integer	Bandwidth size Minimum: <b>0</b> Maximum: <b>200000</b>

**Table 4-137** status

Parameter	Type	Description
associates	Map<String, <a href="#">cni.yangtse.crd.v1.EIPAssociate</a> >	eip associate infos.
eips	Array of <a href="#">eips</a> objects	EIPs is a set of generated EIP resources.
usage	String	Usage is usage of eip in this pool, e.g. 2/10.

**Table 4-138** cni.yangtse.crd.v1.EIPAssociate

Parameter	Type	Description
attachment	<a href="#">attachment</a> object	Attachment is the eip attachment info.
privateIP	<a href="#">privateIP</a> object	PrivateIP is private ip information

**Table 4-139** attachment

Parameter	Type	Description
freeTimestamp	String	Timestamp of NeutronPort be to FixedPreBound or FixedUnBound phase
neutronPortName	String	NeutronPortName is NeutronPort name which associated.
neutronPortNamespace	String	NeutronPortNamespace is NeutronPort namespace which associated.
nodeName	String	nodeName is node name where the NeutronPort resides, must with phase Bound, PreBound or FixedBound.
podName	String	Pod name

Parameter	Type	Description
podNamespace	String	Pod Namespace

**Table 4-140** privateIP

Parameter	Type	Description
id	String	Port ID or EIP ID
ipv4	String	IPv4 is the IPv4 address for traffic from the eni.
ipv6	String	IPv6 is the IPv6 address for traffic from the eni.
mac	String	MAC is the MAC address of the endpoint interface.
status	String	Status of this IP

**Table 4-141** eips

Parameter	Type	Description
alias	String	Alias of the PublicIP
associateInstanceId	String	Associate instance id
associateInstanceType	String	Associate instance type
bandwidthChargeMode	String	Bandwidth charge mode of the PublicIP
bandwidthShareType	String	Bandwidth share type of the PublicIP
bandwidthSize	Integer	Bandwidth size of the PublicIP
id	String	The ID of the PublicIP
ipv4	String	The ipv4 address of the PublicIP
ipv6	String	The ipv6 address of the PublicIP
networkType	String	Network Type of PublicIP
status	String	PublicIP status

## Example Requests

Changing the **labels** value of an existing EIPPool to "**some-key**": "**some-value**"

```
{
  "metadata": {
    "labels": {
      "some-key": "some-value"
    }
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "crd.yangtse.cni/v1",
  "kind": "EIPPool",
  "metadata": {
    "creationTimestamp": "2022-09-07T01:22:50Z",
    "finalizers": [ "yangtse.io/eip-pool" ],
    "generation": 1,
    "labels": {
      "some-key": "some-value"
    }
  },
  "name": "eippool-test",
  "namespace": "namespace-test",
  "resourceVersion": "42396258",
  "selfLink": "/apis/crd.yangtse.cni/v1/namespaces/namespace-test/eippools/eippool-test",
  "uid": "e4dc5432-1d9b-4fcb-8840-ee445b6511ae"
},
"spec": {
  "amount": 1,
  "eipAttributes": {
    "bandwidth": {
      "chargeMode": "bandwidth",
      "name": "eip-test",
      "shareType": "PER",
      "size": 5
    }
  },
  "ipVersion": 4,
  "networkType": "5_g-vm"
}
},
"status": {
  "eips": [ {
    "alias": "eip-test",
    "bandWidthChargeMode": "bandwidth",
    "bandwidthShareType": "PER",
    "bandwidthSize": 5,
    "id": "034a0bae-81f7-46f4-b933-3273adc32b54",
    "ipv4": "100.85.221.2",
    "networkType": "5_g-vm",
    "status": "DOWN"
  } ],
  "usage": "0/1"
}
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 4.2.6 Replacing an EIPPool

### Function

This API is used to replace an EIPPool.

### URI

PUT /apis/crd.yangtse.cni/v1/namespaces/{namespace}/eippools/{name}

**Table 4-142** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the EIPPool
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 4-143** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 4-144** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	<p>Currently, three types of patch request methods are supported. For details, see "Update API Objects in Place Using kubectl patch" (<a href="https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/">https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/</a>).</p> <ul style="list-style-type: none"> <li>• Json Patch, Content-Type: application/json-patch+json As defined in RFC6902, Json Patch contains a series of operations on a JSON object. After receiving the object, the server applies the represented operations to the JSON object.</li> <li>• Merge Patch, Content-Type: application/merge-patch+json According to RFC 7386, Merge Patch contains some description of a JSON object. The JSON object is submitted to the server end and merges with the current object of the server end, which means to replace the list field of the current resource object to form a new object.</li> <li>• Strategic Merge Patch, Content-Type: application/strategic-merge-patch+json Strategic Merge Patch is used to add legal metadata to API objects and uses new metadata to determine which lists should be merged and which ones should not. The current metadata is used as the structure labels.</li> </ul>
Content-Type	Yes	String	<p>Message body type (format). The default value is <b>application/json</b>. Default: <b>application/json</b></p>

**Table 4-145** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">spec</a> object	Specification of the EIPPool.
status	No	<a href="#">status</a> object	Status of the EIPPool.

**Table 4-146** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>



Parameter	Mandatory	Type	Description
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 4-147** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-148** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-149** spec

Parameter	Mandatory	Type	Description
amount	No	Integer	Amount is the amount of eips need to be create. Minimum: <b>0</b> Maximum: <b>500</b>
eipAttributes	No	<a href="#">cni.yangtse.crd.v1.EIPAttributes</a> object	Attributes is the eip attributes which used to create eip.
eips	No	Array of strings	EIPs used to generate EIP resources.



**Table 4-150** cni.yangtse.crd.v1.EIPAttributes

Parameter	Mandatory	Type	Description
alias	No	String	Alias of PublicIP
bandwidth	Yes	<a href="#">cni.yangtse.crd.v1.EIPBandwidth</a> object	Bandwidth create attributes
ipVersion	No	Integer	IP Version of PublicIP Enumeration values: <ul style="list-style-type: none"> <li>• <b>4</b></li> <li>• <b>6</b></li> </ul>
networkType	Yes	String	Network Type of PublicIP

**Table 4-151** cni.yangtse.crd.v1.EIPBandwidth

Parameter	Mandatory	Type	Description
chargeMode	No	String	Bandwidth Charge Mode Enumeration values: <ul style="list-style-type: none"> <li>• <b>bandwidth</b></li> <li>• <b>traffic</b></li> </ul>
id	No	String	Bandwidth id, only useful for WHOLE bandwidth share type
name	No	String	Bandwidth name, only useful for PER bandwidth share type Minimum: <b>1</b> Maximum: <b>64</b>
shareType	No	String	Bandwidth Share Type Enumeration values: <ul style="list-style-type: none"> <li>• <b>PER</b></li> <li>• <b>WHOLE</b></li> </ul>
size	No	Integer	Bandwidth size Minimum: <b>0</b> Maximum: <b>200000</b>

**Table 4-152** status

Parameter	Mandatory	Type	Description
associates	No	Map<String,c ni.yangtse.crd.v1.EIPAssociate>	eip associate infos.
eips	No	Array of eips objects	EIPs is a set of generated EIP resources.
usage	No	String	Usage is usage of eip in this pool, e.g. 2/10.

**Table 4-153** cni.yangtse.crd.v1.EIPAssociate

Parameter	Mandatory	Type	Description
attachment	No	attachment object	Attachment is the eip attachment info.
privateIP	No	privateIP object	PrivateIP is private ip information

**Table 4-154** attachment

Parameter	Mandatory	Type	Description
freeTimestamp	No	String	Timestamp of NeutronPort be to FixedPreBound or FixedUnBound phase
neutronPortName	No	String	NeutronPortName is NeutronPort name which associated.
neutronPortNamespace	No	String	NeutronPortNamespace is NeutronPort namespace which associated.
nodeName	No	String	nodeName is node name where the NeutronPort resides, must with phase Bound, PreBound or FixedBound.
podName	No	String	Pod name
podNamespace	No	String	Pod Namespace

**Table 4-155** privateIP

Parameter	Mandatory	Type	Description
id	No	String	Port ID or EIP ID
ipv4	No	String	IPv4 is the IPv4 address for traffic from the eni.
ipv6	No	String	IPv6 is the IPv6 address for traffic from the eni.
mac	No	String	MAC is the MAC address of the endpoint interface.
status	No	String	Status of this IP

**Table 4-156** eips

Parameter	Mandatory	Type	Description
alias	No	String	Alias of the PublicIP
associateInstanceID	No	String	Associate instance id
associateInstanceType	No	String	Associate instance type
bandwidthChargeMode	No	String	Bandwidth charge mode of the PublicIP
bandwidthShareType	No	String	Bandwidth share type of the PublicIP
bandwidthSize	No	Integer	Bandwidth size of the PublicIP
id	No	String	The ID of the PublicIP
ipv4	No	String	The ipv4 address of the PublicIP
ipv6	No	String	The ipv6 address of the PublicIP
networkType	No	String	Network Type of PublicIP
status	No	String	PublicIP status

## Response Parameters

Status code: 200

**Table 4-157** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">spec</a> object	Specification of the EIPPool.
status	<a href="#">status</a> object	Status of the EIPPool.

**Table 4-158** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 4-159** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>



Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-160** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-161** spec

Parameter	Type	Description
amount	Integer	Amount is the amount of eips need to be create. Minimum: <b>0</b> Maximum: <b>500</b>

Parameter	Type	Description
eipAttributes	<a href="#">cni.yangtse.crd.v1.EIPAttributes</a> object	Attributes is the eip attributes which used to create eip.
eips	Array of strings	EIPs used to generate EIP resources.

**Table 4-162** cni.yangtse.crd.v1.EIPAttributes

Parameter	Type	Description
alias	String	Alias of PublicIP
bandwidth	<a href="#">cni.yangtse.crd.v1.EIPBandwidth</a> object	Bandwidth create attributes
ipVersion	Integer	IP Version of PublicIP Enumeration values: <ul style="list-style-type: none"> <li>• 4</li> <li>• 6</li> </ul>
networkType	String	Network Type of PublicIP

**Table 4-163** cni.yangtse.crd.v1.EIPBandwidth

Parameter	Type	Description
chargeMode	String	Bandwidth Charge Mode Enumeration values: <ul style="list-style-type: none"> <li>• <b>bandwidth</b></li> <li>• <b>traffic</b></li> </ul>
id	String	Bandwidth id, only useful for WHOLE bandwidth share type
name	String	Bandwidth name, only useful for PER bandwidth share type Minimum: <b>1</b> Maximum: <b>64</b>
shareType	String	Bandwidth Share Type Enumeration values: <ul style="list-style-type: none"> <li>• <b>PER</b></li> <li>• <b>WHOLE</b></li> </ul>

Parameter	Type	Description
size	Integer	Bandwidth size Minimum: <b>0</b> Maximum: <b>200000</b>

**Table 4-164** status

Parameter	Type	Description
associates	Map<String, <a href="#">cni.yangtse.crd.v1.EIPAssociate</a> >	eip associate infos.
eips	Array of <a href="#">eips</a> objects	EIPs is a set of generated EIP resources.
usage	String	Usage is usage of eip in this pool, e.g. 2/10.

**Table 4-165** cni.yangtse.crd.v1.EIPAssociate

Parameter	Type	Description
attachment	<a href="#">attachment</a> object	Attachment is the eip attachment info.
privateIP	<a href="#">privateIP</a> object	PrivateIP is private ip information

**Table 4-166** attachment

Parameter	Type	Description
freeTimestamp	String	Timestamp of NeutronPort be to FixedPreBound or FixedUnBound phase
neutronPortName	String	NeutronPortName is NeutronPort name which associated.
neutronPortNamespace	String	NeutronPortNamespace is NeutronPort namespace which associated.
nodeName	String	nodeName is node name where the NeutronPort resides, must with phase Bound, PreBound or FixedBound.
podName	String	Pod name

Parameter	Type	Description
podNamespace	String	Pod Namespace

**Table 4-167** privateIP

Parameter	Type	Description
id	String	Port ID or EIP ID
ipv4	String	IPv4 is the IPv4 address for traffic from the eni.
ipv6	String	IPv6 is the IPv6 address for traffic from the eni.
mac	String	MAC is the MAC address of the endpoint interface.
status	String	Status of this IP

**Table 4-168** eips

Parameter	Type	Description
alias	String	Alias of the PublicIP
associateInstanceID	String	Associate instance id
associateInstanceType	String	Associate instance type
bandwidthChargeMode	String	Bandwidth charge mode of the PublicIP
bandwidthShareType	String	Bandwidth share type of the PublicIP
bandwidthSize	Integer	Bandwidth size of the PublicIP
id	String	The ID of the PublicIP
ipv4	String	The ipv4 address of the PublicIP
ipv6	String	The ipv6 address of the PublicIP
networkType	String	Network Type of PublicIP
status	String	PublicIP status

**Status code: 201**

**Table 4-169** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">spec</a> object	Specification of the EIPPool.
status	<a href="#">status</a> object	Status of the EIPPool.

**Table 4-170** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.



Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 4-171** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-172** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-173** spec

Parameter	Type	Description
amount	Integer	Amount is the amount of eips need to be create. Minimum: <b>0</b> Maximum: <b>500</b>

Parameter	Type	Description
eipAttributes	<a href="#">cni.yangtse.crd.v1.EIPAttributes</a> object	Attributes is the eip attributes which used to create eip.
eips	Array of strings	EIPs used to generate EIP resources.

**Table 4-174** cni.yangtse.crd.v1.EIPAttributes

Parameter	Type	Description
alias	String	Alias of PublicIP
bandwidth	<a href="#">cni.yangtse.crd.v1.EIPBandwidth</a> object	Bandwidth create attributes
ipVersion	Integer	IP Version of PublicIP Enumeration values: <ul style="list-style-type: none"> <li>• 4</li> <li>• 6</li> </ul>
networkType	String	Network Type of PublicIP

**Table 4-175** cni.yangtse.crd.v1.EIPBandwidth

Parameter	Type	Description
chargeMode	String	Bandwidth Charge Mode Enumeration values: <ul style="list-style-type: none"> <li>• <b>bandwidth</b></li> <li>• <b>traffic</b></li> </ul>
id	String	Bandwidth id, only useful for WHOLE bandwidth share type
name	String	Bandwidth name, only useful for PER bandwidth share type Minimum: <b>1</b> Maximum: <b>64</b>
shareType	String	Bandwidth Share Type Enumeration values: <ul style="list-style-type: none"> <li>• <b>PER</b></li> <li>• <b>WHOLE</b></li> </ul>

Parameter	Type	Description
size	Integer	Bandwidth size Minimum: <b>0</b> Maximum: <b>200000</b>

**Table 4-176** status

Parameter	Type	Description
associates	Map<String, <a href="#">cni.yangtse.crd.v1.EIPAssociate</a> >	eip associate infos.
eips	Array of <a href="#">eips</a> objects	EIPs is a set of generated EIP resources.
usage	String	Usage is usage of eip in this pool, e.g. 2/10.

**Table 4-177** cni.yangtse.crd.v1.EIPAssociate

Parameter	Type	Description
attachment	<a href="#">attachment</a> object	Attachment is the eip attachment info.
privateIP	<a href="#">privateIP</a> object	PrivateIP is private ip information

**Table 4-178** attachment

Parameter	Type	Description
freeTimestamp	String	Timestamp of NeutronPort be to FixedPreBound or FixedUnBound phase
neutronPortName	String	NeutronPortName is NeutronPort name which associated.
neutronPortNamespace	String	NeutronPortNamespace is NeutronPort namespace which associated.
nodeName	String	nodeName is node name where the NeutronPort resides, must with phase Bound, PreBound or FixedBound.
podName	String	Pod name

Parameter	Type	Description
podNamespace	String	Pod Namespace

**Table 4-179** privateIP

Parameter	Type	Description
id	String	Port ID or EIP ID
ipv4	String	IPv4 is the IPv4 address for traffic from the eni.
ipv6	String	IPv6 is the IPv6 address for traffic from the eni.
mac	String	MAC is the MAC address of the endpoint interface.
status	String	Status of this IP

**Table 4-180** eips

Parameter	Type	Description
alias	String	Alias of the PublicIP
associateInstanceId	String	Associate instance id
associateInstanceType	String	Associate instance type
bandwidthChargeMode	String	Bandwidth charge mode of the PublicIP
bandwidthShareType	String	Bandwidth share type of the PublicIP
bandwidthSize	Integer	Bandwidth size of the PublicIP
id	String	The ID of the PublicIP
ipv4	String	The ipv4 address of the PublicIP
ipv6	String	The ipv6 address of the PublicIP
networkType	String	Network Type of PublicIP
status	String	PublicIP status

## Example Requests

Changing the **label** value of an existing EIPPool to "**some-key**": "**some-value**"

```
{
  "apiVersion" : "crd.yangtse.cni/v1",
  "kind" : "EIPPool",
  "metadata" : {
    "creationTimestamp" : "2022-09-07T01:22:50Z",
    "finalizers" : [ "yangtse.io/eip-pool" ],
    "generation" : 1,
    "labels" : {
      "some-key" : "some-value"
    },
    "name" : "eippool-test",
    "namespace" : "namespace-test",
    "resourceVersion" : "42396258",
    "selfLink" : "/apis/crd.yangtse.cni/v1/namespaces/namespace-test/eippools/eippool-test",
    "uid" : "e4dc5432-1d9b-4fcb-8840-ee445b6511ae"
  },
  "spec" : {
    "amount" : 1,
    "eipAttributes" : {
      "bandwidth" : {
        "chargeMode" : "bandwidth",
        "name" : "eip-test",
        "shareType" : "PER",
        "size" : 5
      },
      "ipVersion" : 4,
      "networkType" : "5_g-vm"
    }
  },
  "status" : {
    "eips" : [ {
      "alias" : "eip-test",
      "bandWidthChargeMode" : "bandwidth",
      "bandwidthShareType" : "PER",
      "bandwidthSize" : 5,
      "id" : "034a0bae-81f7-46f4-b933-3273adc32b54",
      "ipv4" : "100.85.221.2",
      "networkType" : "5_g-vm",
      "status" : "DOWN"
    } ],
    "usage" : "0/1"
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion" : "crd.yangtse.cni/v1",
  "kind" : "EIPPool",
  "metadata" : {
    "creationTimestamp" : "2022-09-07T01:22:50Z",
    "finalizers" : [ "yangtse.io/eip-pool" ],
    "generation" : 1,
    "labels" : {
      "some-key" : "some-value"
    },
    "name" : "eippool-test",
    "namespace" : "namespace-test",
    "resourceVersion" : "42396258",
    "selfLink" : "/apis/crd.yangtse.cni/v1/namespaces/namespace-test/eippools/eippool-test",

```

```
"uid" : "e4dc5432-1d9b-4fcb-8840-ee445b6511ae"
},
"spec" : {
  "amount" : 1,
  "eipAttributes" : {
    "bandwidth" : {
      "chargeMode" : "bandwidth",
      "name" : "eip-test",
      "shareType" : "PER",
      "size" : 5
    },
    "ipVersion" : 4,
    "networkType" : "5_g-vm"
  }
},
"status" : {
  "eips" : [ {
    "alias" : "eip-test",
    "bandWidthChargeMode" : "bandwidth",
    "bandwidthShareType" : "PER",
    "bandwidthSize" : 5,
    "id" : "034a0bae-81f7-46f4-b933-3273adc32b54",
    "ipv4" : "100.85.221.2",
    "networkType" : "5_g-vm",
    "status" : "DOWN"
  } ],
  "usage" : "0/1"
}
}
```

## Status Codes

Status Code	Description
200	OK
201	Created
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 4.2.7 Querying an EIPPool

### Function

This API is used to query the details about a specified EIPPool.

### URI

GET /apis/crd.yangtse.cni/v1/namespaces/{namespace}/eippools/{name}/status

**Table 4-181** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the EIPPool
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 4-182** Query Parameters

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
pretty	No	String	If 'true', then the output is pretty printed.



## Request Parameters

**Table 4-183** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 4-184** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">spec</a> object	Specification of the EIPPool.
status	<a href="#">status</a> object	Status of the EIPPool.

**Table 4-185** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.
generateName	String	GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.  If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).  Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a>
generation	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-186** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-187** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-188** spec

Parameter	Type	Description
amount	Integer	Amount is the amount of eips need to be create. Minimum: <b>0</b> Maximum: <b>500</b>

Parameter	Type	Description
eipAttributes	<a href="#">cni.yangtse.crd.v1.EIPAttributes</a> object	Attributes is the eip attributes which used to create eip.
eips	Array of strings	EIPs used to generate EIP resources.

**Table 4-189** cni.yangtse.crd.v1.EIPAttributes

Parameter	Type	Description
alias	String	Alias of PublicIP
bandwidth	<a href="#">cni.yangtse.crd.v1.EIPBandwidth</a> object	Bandwidth create attributes
ipVersion	Integer	IP Version of PublicIP Enumeration values: <ul style="list-style-type: none"> <li>• 4</li> <li>• 6</li> </ul>
networkType	String	Network Type of PublicIP

**Table 4-190** cni.yangtse.crd.v1.EIPBandwidth

Parameter	Type	Description
chargeMode	String	Bandwidth Charge Mode Enumeration values: <ul style="list-style-type: none"> <li>• <b>bandwidth</b></li> <li>• <b>traffic</b></li> </ul>
id	String	Bandwidth id, only useful for WHOLE bandwidth share type
name	String	Bandwidth name, only useful for PER bandwidth share type Minimum: <b>1</b> Maximum: <b>64</b>
shareType	String	Bandwidth Share Type Enumeration values: <ul style="list-style-type: none"> <li>• <b>PER</b></li> <li>• <b>WHOLE</b></li> </ul>



Parameter	Type	Description
size	Integer	Bandwidth size Minimum: <b>0</b> Maximum: <b>200000</b>

**Table 4-191** status

Parameter	Type	Description
associates	Map<String, <a href="#">cni.yangtse.crd.v1.EIPAssociate</a> >	eip associate infos.
eips	Array of <a href="#">eips</a> objects	EIPs is a set of generated EIP resources.
usage	String	Usage is usage of eip in this pool, e.g. 2/10.

**Table 4-192** cni.yangtse.crd.v1.EIPAssociate

Parameter	Type	Description
attachment	<a href="#">attachment</a> object	Attachment is the eip attachment info.
privateIP	<a href="#">privateIP</a> object	PrivateIP is private ip information

**Table 4-193** attachment

Parameter	Type	Description
freeTimestamp	String	Timestamp of NeutronPort be to FixedPreBound or FixedUnBound phase
neutronPortName	String	NeutronPortName is NeutronPort name which associated.
neutronPortNamespace	String	NeutronPortNamespace is NeutronPort namespace which associated.
nodeName	String	nodeName is node name where the NeutronPort resides, must with phase Bound, PreBound or FixedBound.
podName	String	Pod name

Parameter	Type	Description
podNamespace	String	Pod Namespace

**Table 4-194** privateIP

Parameter	Type	Description
id	String	Port ID or EIP ID
ipv4	String	IPv4 is the IPv4 address for traffic from the eni.
ipv6	String	IPv6 is the IPv6 address for traffic from the eni.
mac	String	MAC is the MAC address of the endpoint interface.
status	String	Status of this IP

**Table 4-195** eips

Parameter	Type	Description
alias	String	Alias of the PublicIP
associateInstanceId	String	Associate instance id
associateInstanceType	String	Associate instance type
bandwidthChargeMode	String	Bandwidth charge mode of the PublicIP
bandwidthShareType	String	Bandwidth share type of the PublicIP
bandwidthSize	Integer	Bandwidth size of the PublicIP
id	String	The ID of the PublicIP
ipv4	String	The ipv4 address of the PublicIP
ipv6	String	The ipv6 address of the PublicIP
networkType	String	Network Type of PublicIP
status	String	PublicIP status

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "crd.yangtse.cni/v1",
  "kind": "EIPPool",
  "metadata": {
    "creationTimestamp": "2022-09-07T01:22:50Z",
    "finalizers": [ "yangtse.io/eip-pool" ],
    "generation": 1,
    "name": "eippool-test",
    "namespace": "namespace-test",
    "resourceVersion": "42396258",
    "selfLink": "/apis/crd.yangtse.cni/v1/namespaces/namespace-test/eippools/eippool-test",
    "uid": "e4dc5432-1d9b-4fcb-8840-ee445b6511ae"
  },
  "spec": {
    "amount": 1,
    "eipAttributes": {
      "bandwidth": {
        "chargeMode": "bandwidth",
        "name": "eip-test",
        "shareType": "PER",
        "size": 5
      },
      "ipVersion": 4,
      "networkType": "5_g-vm"
    }
  },
  "status": {
    "eips": [ {
      "alias": "eip-test",
      "bandWidthChargeMode": "bandwidth",
      "bandwidthShareType": "PER",
      "bandwidthSize": 5,
      "id": "034a0bae-81f7-46f4-b933-3273adc32b54",
      "ipv4": "100.85.221.2",
      "networkType": "5_g-vm",
      "status": "DOWN"
    } ],
    "usage": "0/1"
  }
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden

Status Code	Description
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 4.3 Network

### 4.3.1 Deleting Networks in a Namespace

#### Function

This API is used to delete all networks in a specified namespace.

#### URI

DELETE /apis/networking.cci.io/v1beta1/namespaces/{namespace}/networks

**Table 4-196** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 4-197** Query Parameters

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset



Parameter	Mandatory	Type	Description
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 4-198** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 4-199** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 4-200** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

**Status code: 200**

**Table 4-201** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 4-202** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-203** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional.  Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"

Parameter	Type	Description
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 4-204** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

Deleting all networks in a specified namespace

```
{
  "apiVersion": "v1",
  "gracePeriodSeconds": 0,
  "kind": "DeleteOptions",
  "propagationPolicy": "Orphan"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "code": 200,
  "kind": "Status",
  "metadata": { },
  "status": "Success"
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden

Status Code	Description
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 4.3.2 Querying Networks in a Namespace

### Function

This API is used to list all networks in a specified namespace.

### URI

GET /apis/networking.cci.io/v1beta1/namespaces/{namespace}/networks

**Table 4-205** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects



**Table 4-206** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 4-207** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 4-208** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.cci.v1beta1.Network</a> objects	Network is a network resource in container.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata</a>

**Table 4-209** io.k8s.api.cci.v1beta1.Network

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	<a href="#">io.k8s.api.cci.v1beta1.NetworkSpec</a> object	Spec defines the attributes on a network
status	<a href="#">io.k8s.api.cci.v1beta1.NetworkStatus</a> object	Status describes the network status

**Table 4-210** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>



Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 4-211** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-212** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-213** io.k8s.api.cci.v1beta1.NetworkSpec

Parameter	Type	Description
attachedVPC	String	ID of the VPC to attach
availableZone	String	available zone
cidr	String	The CIDR of the network

Parameter	Type	Description
networkID	String	network ID
networkType	String	network type like 'overlay_l2'
subnetID	String	Subnet ID
subnets	Array of <a href="#">io.k8s.api.cci.v1beta1.NetworkSubnet</a> objects	Subnets

**Table 4-214** io.k8s.api.cci.v1beta1.NetworkSubnet

Parameter	Type	Description
cidr	String	The CIDR of the network
networkID	String	NetworkID describes the subnet network id
subnetID	String	SubnetID describes the subnet id

**Table 4-215** io.k8s.api.cci.v1beta1.NetworkStatus

Parameter	Type	Description
message	String	Message describes why network is in current state
state	String	State describes the network state

**Table 4-216** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion" : "networking.cci.io/v1beta1",
  "items" : [ {
    "metadata" : {
      "annotations" : {
        "network.alpha.kubernetes.io/default-security-group" : "19c5d024-aed5-4856-b958-c0f65ce70855",
        "network.alpha.kubernetes.io/domain-id" : "aadb43c0b14c4cafbcfff483d075987",
        "network.alpha.kubernetes.io/project-id" : "51bf52609f2a49c68bfda3398817b376"
      },
      "creationTimestamp" : "2018-09-03T11:21:00Z",
      "name" : "namespace-test-dc1-default-network",
      "namespace" : "namespace-test",
      "resourceVersion" : "5016899",
      "selfLink" : "/apis/networking.cci.io/v1beta1/namespaces/namespace-test/networks/namespace-test-dc1-default-network",
      "uid" : "6fb85414-af6b-11e8-b6ef-f898ef6c78b4"
    },
    "spec" : {
      "attachedVPC" : "0d4080e5-546a-46c4-86fe-f3e26d685177",
      "availableZone" : "cn-north-4a",
      "cidr" : "192.168.244.0/23",
      "networkID" : "0022e356-f730-4226-802e-9cdaa6e7da17",
      "networkType" : "underlay_neutron",
      "subnetID" : "1ffd839d-e534-4fa8-a59d-42356335bf74"
    },
    "status" : {
      "state" : "Active"
    }
  } ],
  "kind" : "NetworkList",
  "metadata" : {
    "resourceVersion" : "5016953",
    "selfLink" : "/apis/networking.cci.io/v1beta1/namespaces/namespace-test/networks"
  }
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable

Status Code	Description
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

### 4.3.3 Creating a Network

#### Function

This API is used to create a network.

Network is a new object in CCI that defines the mapping between a network in a namespace of Kubernetes and a VPC.

CCI container networks depend on VPCs. Before creating a network, you need to call VPC APIs to create a subnet or query existing subnets.

The CIDR blocks of the VPC and subnet cannot be 10.247.0.0/16, which is the CIDR block reserved by CCI for Services. If you use this CIDR block, IP addresses may conflict, which may result in workload creation failures or service unavailability. If you do not need to access pods through Services, you can allocate this CIDR block to a VPC.

For details about how to create a network, see "Namespace and Network" (devg\_na.xml).

#### URI

POST /apis/networking.cci.io/v1beta1/namespaces/{namespace}/networks

**Table 4-217** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects



**Table 4-218** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 4-219** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 4-220** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	No	<a href="#">io.k8s.api.cci.v1beta1.NetworkSpec</a> object	Spec defines the attributes on a network
status	No	<a href="#">io.k8s.api.cci.v1beta1.NetworkStatus</a> object	Status describes the network status

**Table 4-221** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.



Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 4-222** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-223** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-224** io.k8s.api.cci.v1beta1.NetworkSpec

Parameter	Mandatory	Type	Description
attachedVPC	No	String	ID of the VPC to attach
availableZone	No	String	available zone
cidr	No	String	The CIDR of the network
networkID	No	String	network ID
networkType	No	String	network type like 'overlay_l2'
subnetID	No	String	Subnet ID

Parameter	Mandatory	Type	Description
subnets	No	Array of <a href="#">io.k8s.api.cci.v1beta1.NetworkSubnet</a> objects	Subnets

**Table 4-225** io.k8s.api.cci.v1beta1.NetworkSubnet

Parameter	Mandatory	Type	Description
cidr	No	String	The CIDR of the network
networkID	No	String	NetworkID describes the subnet network id
subnetID	No	String	SubnetID describes the subnet id

**Table 4-226** io.k8s.api.cci.v1beta1.NetworkStatus

Parameter	Mandatory	Type	Description
message	No	String	Message describes why network is in current state
state	No	String	State describes the network state

## Response Parameters

Status code: 200

**Table 4-227** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	<a href="#">io.k8s.api.cci.v1beta1.NetworkSpec</a> object	Spec defines the attributes on a network
status	<a href="#">io.k8s.api.cci.v1beta1.NetworkStatus</a> object	Status describes the network status

**Table 4-228** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 4-229** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>



Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-230** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-231** io.k8s.api.cci.v1beta1.NetworkSpec

Parameter	Type	Description
attachedVPC	String	ID of the VPC to attach
availableZone	String	available zone
cidr	String	The CIDR of the network

Parameter	Type	Description
networkID	String	network ID
networkType	String	network type like 'overlay_l2'
subnetID	String	Subnet ID
subnets	Array of <a href="#">io.k8s.api.cci.v1beta1.NetworkSubnet</a> objects	Subnets

**Table 4-232** io.k8s.api.cci.v1beta1.NetworkSubnet

Parameter	Type	Description
cidr	String	The CIDR of the network
networkID	String	NetworkID describes the subnet network id
subnetID	String	SubnetID describes the subnet id

**Table 4-233** io.k8s.api.cci.v1beta1.NetworkStatus

Parameter	Type	Description
message	String	Message describes why network is in current state
state	String	State describes the network state

**Status code: 201**

**Table 4-234** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	<a href="#">io.k8s.api.cci.v1beta1.NetworkSpec</a> object	Spec defines the attributes on a network
status	<a href="#">io.k8s.api.cci.v1beta1.NetworkStatus</a> object	Status describes the network status

**Table 4-235** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 4-236** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-237** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-238** io.k8s.api.cci.v1beta1.NetworkSpec

Parameter	Type	Description
attachedVPC	String	ID of the VPC to attach
availableZone	String	available zone
cidr	String	The CIDR of the network



Parameter	Type	Description
networkID	String	network ID
networkType	String	network type like 'overlay_l2'
subnetID	String	Subnet ID
subnets	Array of <a href="#">io.k8s.api.cci.v1beta1.NetworkSubnet</a> objects	Subnets

**Table 4-239** io.k8s.api.cci.v1beta1.NetworkSubnet

Parameter	Type	Description
cidr	String	The CIDR of the network
networkID	String	NetworkID describes the subnet network id
subnetID	String	SubnetID describes the subnet id

**Table 4-240** io.k8s.api.cci.v1beta1.NetworkStatus

Parameter	Type	Description
message	String	Message describes why network is in current state
state	String	State describes the network state

**Status code: 202**

**Table 4-241** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	<a href="#">io.k8s.api.cci.v1beta1.NetworkSpec</a> object	Spec defines the attributes on a network
status	<a href="#">io.k8s.api.cci.v1beta1.NetworkStatus</a> object	Status describes the network status

**Table 4-242** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-243** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-244** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-245** io.k8s.api.cci.v1beta1.NetworkSpec

Parameter	Type	Description
attachedVPC	String	ID of the VPC to attach
availableZone	String	available zone
cidr	String	The CIDR of the network

Parameter	Type	Description
networkID	String	network ID
networkType	String	network type like 'overlay_l2'
subnetID	String	Subnet ID
subnets	Array of <a href="#">io.k8s.api.cci.v1beta1.NetworkSubnet</a> objects	Subnets

**Table 4-246** io.k8s.api.cci.v1beta1.NetworkSubnet

Parameter	Type	Description
cidr	String	The CIDR of the network
networkID	String	NetworkID describes the subnet network id
subnetID	String	SubnetID describes the subnet id

**Table 4-247** io.k8s.api.cci.v1beta1.NetworkStatus

Parameter	Type	Description
message	String	Message describes why network is in current state
state	String	State describes the network state

## Example Requests

Creating a network, specifying the account ID, project ID, security group ID, and associated VPC and subnet

Data structure of the **metadata.annotations** field

Parameter	Mandatory	Parameter Type	Description
network.alpha.kubernetes.io/default-security-group	Yes	String	ID of the security group for the VPC subnet associated with the network



Parameter	Mandatory	Parameter Type	Description
network.alpha.kubernetes.io/project-id	Yes	String	Project ID of the network. For details, see "Obtaining a Project ID" (cci_02_1001.xml).
network.alpha.kubernetes.io/domain-id	Yes	String	Account ID of the network. For details, see "Obtaining an Account ID" (cci_02_1002.xml).

VPC network type

Parameter	Mandatory	Parameter Type	Description
cidr	No	String	CIDR block of the VPC subnet associated with the network

Note: The CIDR blocks of the VPC and subnet cannot be 10.247.0.0/16, which is the CIDR block reserved by CCI for services. If you use this CIDR block, IP addresses may conflict, which may result in workload creation failures or service unavailability. If you do not need to access pods through Services, you can allocate this CIDR block to a VPC. |

| attachedVPC | Yes | String | ID of the VPC associated with the network | |  
networkType | Yes | String | Network type: VPC (The parameter value is **underlay\_neutron**.) | |  
networkID | Yes | String | Network ID of the VPC subnet associated with the network | |  
subnetID | Yes | String | Subnet ID of the VPC subnet associated with the network | |  
availableZone | Yes | String | AZ of the VPC subnet associated with the network  
Currently, the following regions are supported: CN North-Beijing4, CN East-Shanghai1, CN East-Shanghai2, and CN South-Guangzhou. You can set this parameter to **cn-north-4a**, **cn-east-3a**, **cn-east-2d**, or **cn-south-1f**. |

```
{
  "apiVersion": "networking.cci.io/v1beta1",
  "kind": "Network",
  "metadata": {
    "annotations": {
      "network.alpha.kubernetes.io/default-security-group": "security-group-id",
      "network.alpha.kubernetes.io/domain-id": "domain-id",
      "network.alpha.kubernetes.io/project-id": "project-id"
    },
    "name": "test-network",
    "namespace": "test-ns"
  },
}
```

```
"spec" : {
  "attachedVPC" : "vpc-id",
  "availableZone" : "cn-north-4a",
  "cidr" : "192.168.0.0/24",
  "networkID" : "network-id",
  "networkType" : "underlay_neutron",
  "subnetID" : "subnet-id"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion" : "networking.cci.io/v1beta1",
  "kind" : "Network",
  "metadata" : {
    "annotations" : {
      "network.alpha.kubernetes.io/default-security-group" : "security-group-id",
      "network.alpha.kubernetes.io/domain-id" : "domain-id",
      "network.alpha.kubernetes.io/project-id" : "project-id",
      "network.alpha.kubernetes.io/type" : "underlay_neutron"
    },
    "creationTimestamp" : "2018-08-21T02:35:59Z",
    "name" : "test-network",
    "namespace" : "test-ns",
    "resourceVersion" : "2025736",
    "selfLink" : "/apis/networking.cci.io/v1beta1/namespaces/test-ns/networks/test-network",
    "uid" : "f03452ac-a4ea-11e8-8500-c81fbe371a17"
  },
  "spec" : {
    "attachedVPC" : "vpc-id",
    "availableZone" : "cn-north-4a",
    "cidr" : "192.168.0.0/24",
    "networkID" : "network-id",
    "networkType" : "underlay_neutron",
    "subnetID" : "subnet-id"
  },
  "status" : {
    "state" : "Initializing"
  }
}
```

## Status Codes

Status Code	Description
200	OK
201	Created
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound

Status Code	Description
405	MethodNotAllowed
406	NotAcceptable
409	AlreadyExists
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 4.3.4 Deleting a Network

### Function

This API is used to delete a specified network.

### URI

DELETE /apis/networking.cci.io/v1beta1/namespaces/{namespace}/networks/{name}

**Table 4-248** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Network
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 4-249** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.

Parameter	Mandatory	Type	Description
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 4-250** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 4-251** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 4-252** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

**Status code: 200**

**Table 4-253** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	<a href="#">io.k8s.api.cci.v1beta1.NetworkSpec</a> object	Spec defines the attributes on a network
status	<a href="#">io.k8s.api.cci.v1beta1.NetworkStatus</a> object	Status describes the network status

**Table 4-254** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>



Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 4-255** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-256** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-257** io.k8s.api.cci.v1beta1.NetworkSpec

Parameter	Type	Description
attachedVPC	String	ID of the VPC to attach
availableZone	String	available zone
cidr	String	The CIDR of the network

Parameter	Type	Description
networkID	String	network ID
networkType	String	network type like 'overlay_l2'
subnetID	String	Subnet ID
subnets	Array of <a href="#">io.k8s.api.cci.v1beta1.NetworkSubnet</a> objects	Subnets

**Table 4-258** io.k8s.api.cci.v1beta1.NetworkSubnet

Parameter	Type	Description
cidr	String	The CIDR of the network
networkID	String	NetworkID describes the subnet network id
subnetID	String	SubnetID describes the subnet id

**Table 4-259** io.k8s.api.cci.v1beta1.NetworkStatus

Parameter	Type	Description
message	String	Message describes why network is in current state
state	String	State describes the network state

**Status code: 202**

**Table 4-260** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	<a href="#">io.k8s.api.cci.v1beta1.NetworkSpec</a> object	Spec defines the attributes on a network
status	<a href="#">io.k8s.api.cci.v1beta1.NetworkStatus</a> object	Status describes the network status

**Table 4-261** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.



Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-262** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-263** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-264** io.k8s.api.cci.v1beta1.NetworkSpec

Parameter	Type	Description
attachedVPC	String	ID of the VPC to attach
availableZone	String	available zone
cidr	String	The CIDR of the network

Parameter	Type	Description
networkID	String	network ID
networkType	String	network type like 'overlay_l2'
subnetID	String	Subnet ID
subnets	Array of <a href="#">io.k8s.api.cci.v1beta1.NetworkSubnet</a> objects	Subnets

**Table 4-265** io.k8s.api.cci.v1beta1.NetworkSubnet

Parameter	Type	Description
cidr	String	The CIDR of the network
networkID	String	NetworkID describes the subnet network id
subnetID	String	SubnetID describes the subnet id

**Table 4-266** io.k8s.api.cci.v1beta1.NetworkStatus

Parameter	Type	Description
message	String	Message describes why network is in current state
state	String	State describes the network state

## Example Requests

Deleting a network

```
{
  "Kind": "DeleteOptions",
  "apiVersion": "v1",
  "gracePeriodSeconds": 0
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "networking.cci.io/v1beta1",
  "kind": "Network",
  "metadata": {
```

```

"annotations" : {
  "network.alpha.kubernetes.io/default-security-group" : "19c5d024-aed5-4856-b958-c0f65ce70855",
  "network.alpha.kubernetes.io/domain-id" : "aad43c0b14c4cafbcfff483d075987",
  "network.alpha.kubernetes.io/project-id" : "51bf52609f2a49c68bfda3398817b376"
},
"creationTimestamp" : "2018-09-03T11:21:00Z",
"name" : "namespace-test-dc1-default-network",
"namespace" : "namespace-test",
"resourceVersion" : "5016899",
"selfLink" : "/apis/networking.cci.io/v1beta1/namespaces/namespace-test/networks/namespace-test-dc1-
default-network",
"uid" : "6fb85414-af6b-11e8-b6ef-f898ef6c78b4"
},
"spec" : {
  "attachedVPC" : "0d4080e5-546a-46c4-86fe-f3e26d685177",
  "availableZone" : "cn-north-4a",
  "cidr" : "192.168.244.0/23",
  "networkID" : "0022e356-f730-4226-802e-9cdaa6e7da17",
  "networkType" : "underlay_neutron",
  "subnetID" : "1ffd839d-e534-4fa8-a59d-42356335bf74"
},
"status" : {
  "state" : "Active"
}
}

```

## Status Codes

Status Code	Description
200	OK
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 4.3.5 Querying a Network

### Function

This API is used to query a specified network.

### URI

GET /apis/networking.cci.io/v1beta1/namespaces/{namespace}/networks/{name}

**Table 4-267** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Network
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 4-268** Query Parameters

Parameter	Mandatory	Type	Description
exact	No	Boolean	Should the export be exact. Exact export maintains cluster-specific fields like 'Namespace'. Deprecated. Planned for removal in 1.18.
export	No	Boolean	Should this value be exported. Export strips fields that a user can not specify. Deprecated. Planned for removal in 1.18.
pretty	No	String	If 'true', then the output is pretty printed.

### Request Parameters

**Table 4-269** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.



## Response Parameters

Status code: 200

**Table 4-270** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	<a href="#">io.k8s.api.cci.v1beta1.NetworkSpec</a> object	Spec defines the attributes on a network
status	<a href="#">io.k8s.api.cci.v1beta1.NetworkStatus</a> object	Status describes the network status

**Table 4-271** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-272** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-273** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-274** io.k8s.api.cci.v1beta1.NetworkSpec

Parameter	Type	Description
attachedVPC	String	ID of the VPC to attach
availableZone	String	available zone
cidr	String	The CIDR of the network

Parameter	Type	Description
networkID	String	network ID
networkType	String	network type like 'overlay_l2'
subnetID	String	Subnet ID
subnets	Array of <a href="#">io.k8s.api.cci.v1beta1.NetworkSubnet</a> objects	Subnets

**Table 4-275** io.k8s.api.cci.v1beta1.NetworkSubnet

Parameter	Type	Description
cidr	String	The CIDR of the network
networkID	String	NetworkID describes the subnet network id
subnetID	String	SubnetID describes the subnet id

**Table 4-276** io.k8s.api.cci.v1beta1.NetworkStatus

Parameter	Type	Description
message	String	Message describes why network is in current state
state	String	State describes the network state

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "networking.cci.io/v1beta1",
  "kind": "Network",
  "metadata": {
    "annotations": {
      "network.alpha.kubernetes.io/default-security-group": "19c5d024-aed5-4856-b958-c0f65ce70855",
      "network.alpha.kubernetes.io/domain-id": "aadb43c0b14c4afbccfff483d075987",
      "network.alpha.kubernetes.io/project-id": "51bf52609f2a49c68bfda3398817b376"
    }
  },
  "creationTimestamp": "2018-09-03T11:21:00Z",
}
```



```

    "name" : "namespace-test-dc1-default-network",
    "namespace" : "namespace-test",
    "resourceVersion" : "5016899",
    "selfLink" : "/apis/networking.cci.io/v1beta1/namespaces/namespace-test/networks/namespace-test-dc1-
default-network",
    "uid" : "6fb85414-af6b-11e8-b6ef-f898ef6c78b4"
  },
  "spec" : {
    "attachedVPC" : "0d4080e5-546a-46c4-86fe-f3e26d685177",
    "availableZone" : "cn-north-4a",
    "cidr" : "192.168.244.0/23",
    "networkID" : "0022e356-f730-4226-802e-9cdaa6e7da17",
    "networkType" : "underlay_neutron",
    "subnetID" : "1ffd839d-e534-4fa8-a59d-42356335bf74"
  },
  "status" : {
    "state" : "Active"
  }
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

### 4.3.6 Querying the Status of a Network

#### Function

This API is used to query the status of a specified network.

## URI

GET /apis/networking.cci.io/v1beta1/namespaces/{namespace}/networks/{name}/status

**Table 4-277** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Network
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 4-278** Query Parameters

Parameter	Mandatory	Type	Description
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 4-279** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 4-280** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	<a href="#">io.k8s.api.cci.v1beta1.NetworkSpec</a> object	Spec defines the attributes on a network
status	<a href="#">io.k8s.api.cci.v1beta1.NetworkStatus</a> object	Status describes the network status

**Table 4-281** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-282** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.



Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 4-283** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 4-284** io.k8s.api.cci.v1beta1.NetworkSpec

Parameter	Type	Description
attachedVPC	String	ID of the VPC to attach
availableZone	String	available zone
cidr	String	The CIDR of the network

Parameter	Type	Description
networkID	String	network ID
networkType	String	network type like 'overlay_l2'
subnetID	String	Subnet ID
subnets	Array of <a href="#">io.k8s.api.cci.v1beta1.NetworkSubnet</a> objects	Subnets

**Table 4-285** io.k8s.api.cci.v1beta1.NetworkSubnet

Parameter	Type	Description
cidr	String	The CIDR of the network
networkID	String	NetworkID describes the subnet network id
subnetID	String	SubnetID describes the subnet id

**Table 4-286** io.k8s.api.cci.v1beta1.NetworkStatus

Parameter	Type	Description
message	String	Message describes why network is in current state
state	String	State describes the network state

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "networking.cci.io/v1beta1",
  "kind": "Network",
  "metadata": {
    "annotations": {
      "network.alpha.kubernetes.io/default-security-group": "security-group-id",
      "network.alpha.kubernetes.io/domain-id": "domain-id",
      "network.alpha.kubernetes.io/project-id": "project-id",
      "network.alpha.kubernetes.io/type": "underlay_neutron"
    }
  }
}
```

```

"creationTimestamp" : "2018-08-21T02:35:59Z",
"name" : "test-network",
"namespace" : "test-ns",
"resourceVersion" : "2025736",
"selfLink" : "/apis/networking.cci.io/v1beta1/namespaces/test-ns/networks/test-network",
"uid" : "f03452ac-a4ea-11e8-8500-c81fbe371a17"
},
"spec" : {
"attachedVPC" : "vpc-id",
"availableZone" : "cn-north-4a",
"cidr" : "192.168.0.0/24",
"networkID" : "network-id",
"networkType" : "underlay_neutron",
"subnetID" : "subnet-id"
},
"status" : {
"state" : "Active"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

# 5 Kubernetes APIs

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- [5.2 Pod](#)
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## 5.1 ConfigMap

### 5.1.1 Deleting ConfigMaps in a Namespace

#### Function

This API is used to delete all ConfigMaps in a specified namespace.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

DELETE /api/v1/namespaces/{namespace}/configmaps

**Table 5-1** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-2** Query Parameters

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>



Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset

Parameter	Mandatory	Type	Description
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-4** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-5** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

**Status code: 200**

**Table 5-6** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-7** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-8** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional.  Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"

Parameter	Type	Description
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-9** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "v1",
  "items": [ {
    "data": {
      "upstreamNameservers": "[\"*.*.*.*\"]"
    },
    "metadata": {
      "creationTimestamp": "2018-09-03T11:20:54Z",
      "labels": {
        "addonmanager.kubernetes.io/mode": "EnsureExists",
        "app": "kube-dns"
      },
      "name": "kube-dns",
      "namespace": "namespace-test",
      "resourceVersion": "5016780",
      "selfLink": "/api/v1/namespaces/namespace-test/configmaps/kube-dns",
      "uid": "6c48d677-af6b-11e8-b6ef-f898ef6c78b4"
    }
  } ],
  "kind": "ConfigMapList",
  "metadata": {
    "resourceVersion": "5174188",
    "selfLink": "/api/v1/namespaces/namespace-test/configmaps"
  }
}
```



## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.1.2 Querying ConfigMaps in a Namespace

### Function

This API is used query the details about all ConfigMaps in a specified namespace.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /api/v1/namespaces/{namespace}/configmaps

**Table 5-10** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-11** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-12** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-13** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.core.v1.ConfigMap</a> objects	Items is the list of ConfigMaps.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

**Table 5-14** io.k8s.api.core.v1.ConfigMap

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
binaryData	Map<String,String>	BinaryData contains the binary data. Each key must consist of alphanumeric characters, '-', '_' or '!'. BinaryData can contain byte sequences that are not in the UTF-8 range. The keys stored in BinaryData must not overlap with the ones in the Data field, this is enforced during validation process. Using this field will require 1.10+ apiserver and kubelet.
data	Map<String,String>	Data contains the configuration data. Each key must consist of alphanumeric characters, '-', '_' or '!'. Values with non-UTF-8 byte sequences must use the BinaryData field. The keys stored in Data must not overlap with the keys in the BinaryData field, this is enforced during validation process.
immutable	Boolean	Immutable, if set to true, ensures that data stored in the ConfigMap cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

**Table 5-15** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.



Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-16** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-17** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-18** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "items": [{
    "data": {
      "property_1": "test"
    },
    "metadata": {
      "creationTimestamp": "2017-12-13T03:15:57Z",
      "name": "test-12130306",
      "namespace": "ns-12130306-s",
      "resourceVersion": "419081",
      "selfLink": "/api/v1/namespaces/ns-12130306-s/configmaps/test-12130306",
      "uid": "efd6d9e0-dfb3-11e7-9c19-fa163e2d897b"
    }
  }],
  "kind": "ConfigMapList",
  "metadata": {
    "resourceVersion": "419140",
    "selfLink": "/api/v1/namespaces/ns-12130306-s/configmaps"
  }
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable

Status Code	Description
504	ServerTimeout

## 5.1.3 Creating a ConfigMap

### Function

This API is used to create a ConfigMap.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /api/v1/namespaces/{namespace}/configmaps

**Table 5-19** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-20** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed



Parameter	Mandatory	Type	Description
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-21** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-22** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Mandatory	Type	Description
binaryData	No	Map<String,String>	BinaryData contains the binary data. Each key must consist of alphanumeric characters, '-', '_' or '!'. BinaryData can contain byte sequences that are not in the UTF-8 range. The keys stored in BinaryData must not overlap with the ones in the Data field, this is enforced during validation process. Using this field will require 1.10+ apiserver and kubelet.
data	No	Map<String,String>	Data contains the configuration data. Each key must consist of alphanumeric characters, '-', '_' or '!'. Values with non-UTF-8 byte sequences must use the BinaryData field. The keys stored in Data must not overlap with the keys in the BinaryData field, this is enforced during validation process.
immutable	No	Boolean	Immutable, if set to true, ensures that data stored in the ConfigMap cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Mandatory	Type	Description
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

**Table 5-23** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Mandatory	Type	Description
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>



Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-24** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-25** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

## Response Parameters

Status code: 200

**Table 5-26** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
binaryData	Map<String,String>	BinaryData contains the binary data. Each key must consist of alphanumeric characters, '-', '_' or '!'. BinaryData can contain byte sequences that are not in the UTF-8 range. The keys stored in BinaryData must not overlap with the ones in the Data field, this is enforced during validation process. Using this field will require 1.10+ apiserver and kubelet.
data	Map<String,String>	Data contains the configuration data. Each key must consist of alphanumeric characters, '-', '_' or '!'. Values with non-UTF-8 byte sequences must use the BinaryData field. The keys stored in Data must not overlap with the keys in the BinaryData field, this is enforced during validation process.
immutable	Boolean	Immutable, if set to true, ensures that data stored in the ConfigMap cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

**Table 5-27** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.



Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-28** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-29** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Status code: 201**

**Table 5-30** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
binaryData	Map<String,String>	BinaryData contains the binary data. Each key must consist of alphanumeric characters, '-', '_' or '!'. BinaryData can contain byte sequences that are not in the UTF-8 range. The keys stored in BinaryData must not overlap with the ones in the Data field, this is enforced during validation process. Using this field will require 1.10+ apiserver and kubelet.
data	Map<String,String>	Data contains the configuration data. Each key must consist of alphanumeric characters, '-', '_' or '!'. Values with non-UTF-8 byte sequences must use the BinaryData field. The keys stored in Data must not overlap with the keys in the BinaryData field, this is enforced during validation process.
immutable	Boolean	Immutable, if set to true, ensures that data stored in the ConfigMap cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="https://git.k8s.io/api/meta/v1/objects">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

**Table 5-31** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-32** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>



Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-33** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Status code: 202**

**Table 5-34** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
binaryData	Map<String,String>	BinaryData contains the binary data. Each key must consist of alphanumeric characters, '-', '_' or '!'. BinaryData can contain byte sequences that are not in the UTF-8 range. The keys stored in BinaryData must not overlap with the ones in the Data field, this is enforced during validation process. Using this field will require 1.10+ apiserver and kubelet.
data	Map<String,String>	Data contains the configuration data. Each key must consist of alphanumeric characters, '-', '_' or '!'. Values with non-UTF-8 byte sequences must use the BinaryData field. The keys stored in Data must not overlap with the keys in the BinaryData field, this is enforced during validation process.
immutable	Boolean	Immutable, if set to true, ensures that data stored in the ConfigMap cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="https://github.com/kubernetes/api/blob/master/pkg/apis/meta/v1/objectMeta.go">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

**Table 5-35** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-36** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-37** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

## Example Requests

Creating a ConfigMap named **configmap-test** and configuring the data key value

```
{
  "apiVersion": "v1",
  "data": {
    "property_1": "test"
  },
  "kind": "ConfigMap",
  "metadata": {
    "name": "configmap-test"
  }
}
```



```
}  
}
```

## Example Responses

**Status code: 200**

OK

```
{  
  "apiVersion": "v1",  
  "data": {  
    "property_1": "test"  
  },  
  "kind": "ConfigMap",  
  "metadata": {  
    "creationTimestamp": "2018-09-04T03:11:29Z",  
    "name": "configmap-test",  
    "namespace": "namespace-test",  
    "resourceVersion": "5170290",  
    "selfLink": "/api/v1/namespaces/namespace-test/configmaps/configmap-test",  
    "uid": "379519a3-aff0-11e8-8f17-c81fbe371a17"  
  }  
}
```

## Status Codes

Status Code	Description
200	OK
201	Created
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	AlreadyExists
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.1.4 Deleting a ConfigMap

### Function

This API is used to delete a specified ConfigMap.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /api/v1/namespaces/{namespace}/configmaps/{name}

**Table 5-38** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the ConfigMap
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-39** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

Table 5-40 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-41** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.

Parameter	Mandatory	Type	Description
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-42** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

Status code: 200

**Table 5-43** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-44** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-45** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-46** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.



Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

**Status code: 202**

**Table 5-47** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-48** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.

Parameter	Type	Description
kind	String	The kind attribute of the resource associated with the status <code>StatusReason</code> . On some operations may differ from the requested resource <code>Kind</code> . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status <code>StatusReason</code> (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-49** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-50** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

```
{
  "apiVersion": "v1",
  "gracePeriodSeconds": 0,
  "kind": "DeleteOptions"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "code": 200,
  "details": {
    "kind": "configmaps",
    "name": "configmap-test",
    "uid": "379519a3-aff0-11e8-8f17-c81fbe371a17"
  },
  "kind": "Status",
  "metadata": { },
  "status": "Success"
}
```

## Status Codes

Status Code	Description
200	OK
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.1.5 Querying a ConfigMap

### Function

This API is used to query the details about a specified ConfigMap.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /api/v1/namespaces/{namespace}/configmaps/{name}

**Table 5-51** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the ConfigMap
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-52** Query Parameters

Parameter	Mandatory	Type	Description
exact	No	Boolean	Should the export be exact. Exact export maintains cluster-specific fields like 'Namespace'. Deprecated. Planned for removal in 1.18.
export	No	Boolean	Should this value be exported. Export strips fields that a user can not specify. Deprecated. Planned for removal in 1.18.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-53** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-54** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
binaryData	Map<String,String>	BinaryData contains the binary data. Each key must consist of alphanumeric characters, '-', '_' or '!'. BinaryData can contain byte sequences that are not in the UTF-8 range. The keys stored in BinaryData must not overlap with the ones in the Data field, this is enforced during validation process. Using this field will require 1.10+ apiserver and kubelet.
data	Map<String,String>	Data contains the configuration data. Each key must consist of alphanumeric characters, '-', '_' or '!'. Values with non-UTF-8 byte sequences must use the BinaryData field. The keys stored in Data must not overlap with the keys in the BinaryData field, this is enforced during validation process.

Parameter	Type	Description
immutable	Boolean	Immutable, if set to true, ensures that data stored in the ConfigMap cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

**Table 5-55** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.



Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-56** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-57** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
```

```
"data" : {  
  "property_1" : "new"  
},  
"kind" : "ConfigMap",  
"metadata" : {  
  "creationTimestamp" : "2017-12-13T03:15:57Z",  
  "name" : "test-12130306",  
  "namespace" : "ns-12130306-s",  
  "resourceVersion" : "419141",  
  "selfLink" : "/api/v1/namespaces/ns-12130306-s/configmaps/test-12130306",  
  "uid" : "efd6d9e0-dfb3-11e7-9c19-fa163e2d897b"  
}  
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.1.6 Updating a ConfigMap

### Function

This API is used to update a specified ConfigMap.

The following fields can be updated:

- **metadata.labels**
- **metadata.annotations**

- **data**

## Calling Method

For details, see [Calling APIs](#).

## URI

PATCH /api/v1/namespaces/{namespace}/configmaps/{name}

**Table 5-58** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the ConfigMap
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-59** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> . This field is required for apply requests (application/apply-patch) but optional for non-apply patch types (JsonPatch, MergePatch, StrategicMergePatch).

Parameter	Mandatory	Type	Description
force	No	Boolean	Force is going to "force" Apply requests. It means user will re-acquire conflicting fields owned by other people. Force flag must be unset for non-apply patch requests.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-60** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.



Parameter	Mandatory	Type	Description
Content-Type	Yes	String	<p>Currently, three types of patch request methods are supported. For details, see "Update API Objects in Place Using kubectl patch" (<a href="https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/">https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/</a>).</p> <ul style="list-style-type: none"> <li>• <b>Json Patch, Content-Type: application/json-patch+json</b> As defined in RFC6902, Json Patch contains a series of operations on a JSON object. After receiving the object, the server applies the represented operations to the JSON object.</li> <li>• <b>Merge Patch, Content-Type: application/merge-patch+json</b> According to RFC 7386, Merge Patch contains some description of a JSON object. The JSON object is submitted to the server end and merges with the current object of the server end, which means to replace the list field of the current resource object to form a new object.</li> <li>• <b>Strategic Merge Patch, Content-Type: application/strategic-merge-patch+json</b> Strategic Merge Patch is used to add legal metadata to API objects and uses new metadata to determine which lists should be merged and which ones should not. The current metadata is used as the structure labels.</li> </ul>

**Table 5-61** Request body parameters

Parameter	Mandatory	Type	Description
-	Yes	Object	Patch is provided to give a concrete name and type to the Kubernetes PATCH request body.

## Response Parameters

Status code: 200

**Table 5-62** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
binaryData	Map<String,String>	BinaryData contains the binary data. Each key must consist of alphanumeric characters, '-', '_' or '!'. BinaryData can contain byte sequences that are not in the UTF-8 range. The keys stored in BinaryData must not overlap with the ones in the Data field, this is enforced during validation process. Using this field will require 1.10+ apiserver and kubelet.
data	Map<String,String>	Data contains the configuration data. Each key must consist of alphanumeric characters, '-', '_' or '!'. Values with non-UTF-8 byte sequences must use the BinaryData field. The keys stored in Data must not overlap with the keys in the BinaryData field, this is enforced during validation process.
immutable	Boolean	Immutable, if set to true, ensures that data stored in the ConfigMap cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

**Table 5-63** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC. Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.
generateName	String	GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.  If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).  Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a>
generation	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-64** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-65** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

## Example Requests

Updating a ConfigMap by adding the **property\_2** field

```
{
  "data" : {
    "property_2" : "test"
  }
}
```



## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "data": {
    "property_1": "test",
    "property_2": "test"
  },
  "kind": "ConfigMap",
  "metadata": {
    "creationTimestamp": "2018-09-04T03:11:29Z",
    "name": "configmap-test",
    "namespace": "namespace-test",
    "resourceVersion": "5171481",
    "selfLink": "/api/v1/namespaces/namespace-test/configmaps/configmap-test",
    "uid": "379519a3-aff0-11e8-8f17-c81fbe371a17"
  }
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.1.7 Replacing a ConfigMap

### Function

This API is used to update a specified ConfigMap.

The following fields can be updated:

- **metadata.labels**
- **metadata.annotations**
- **data**

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /api/v1/namespaces/{namespace}/configmaps/{name}

**Table 5-66** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the ConfigMap
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-67** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

Parameter	Mandatory	Type	Description
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-68** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-69** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Mandatory	Type	Description
binaryData	No	Map<String,String>	BinaryData contains the binary data. Each key must consist of alphanumeric characters, '-', '_' or '!'. BinaryData can contain byte sequences that are not in the UTF-8 range. The keys stored in BinaryData must not overlap with the ones in the Data field, this is enforced during validation process. Using this field will require 1.10+ apiserver and kubelet.
data	No	Map<String,String>	Data contains the configuration data. Each key must consist of alphanumeric characters, '-', '_' or '!'. Values with non-UTF-8 byte sequences must use the BinaryData field. The keys stored in Data must not overlap with the keys in the BinaryData field, this is enforced during validation process.
immutable	No	Boolean	Immutable, if set to true, ensures that data stored in the ConfigMap cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Mandatory	Type	Description
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

**Table 5-70** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Mandatory	Type	Description
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.



Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-71** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-72** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

## Response Parameters

Status code: 200

**Table 5-73** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
binaryData	Map<String,String>	BinaryData contains the binary data. Each key must consist of alphanumeric characters, '-', '_' or '!'. BinaryData can contain byte sequences that are not in the UTF-8 range. The keys stored in BinaryData must not overlap with the ones in the Data field, this is enforced during validation process. Using this field will require 1.10+ apiserver and kubelet.
data	Map<String,String>	Data contains the configuration data. Each key must consist of alphanumeric characters, '-', '_' or '!'. Values with non-UTF-8 byte sequences must use the BinaryData field. The keys stored in Data must not overlap with the keys in the BinaryData field, this is enforced during validation process.
immutable	Boolean	Immutable, if set to true, ensures that data stored in the ConfigMap cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

**Table 5-74** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>



Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-75** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-76** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Status code: 201**

**Table 5-77** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
binaryData	Map<String,String>	BinaryData contains the binary data. Each key must consist of alphanumeric characters, '-', '_' or '.'. BinaryData can contain byte sequences that are not in the UTF-8 range. The keys stored in BinaryData must not overlap with the ones in the Data field, this is enforced during validation process. Using this field will require 1.10+ apiserver and kubelet.
data	Map<String,String>	Data contains the configuration data. Each key must consist of alphanumeric characters, '-', '_' or '.'. Values with non-UTF-8 byte sequences must use the BinaryData field. The keys stored in Data must not overlap with the keys in the BinaryData field, this is enforced during validation process.
immutable	Boolean	Immutable, if set to true, ensures that data stored in the ConfigMap cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="https://git.k8s.io/api/meta/v1/objects">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

**Table 5-78** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>



Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-79** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-80** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

## Example Requests

Changing the **data** value of an existing ConfigMap to "**property\_1**": "**test2**"

```
{
  "apiVersion": "v1",
  "data": {
    "property_1": "test2"
  },
  "kind": "ConfigMap",
  "metadata": {
    "name": "configmap-test"
```

```
}  
}
```

## Example Responses

**Status code: 200**

OK

```
{  
  "apiVersion": "v1",  
  "data": {  
    "property_1": "test2"  
  },  
  "kind": "ConfigMap",  
  "metadata": {  
    "creationTimestamp": "2018-09-04T03:11:29Z",  
    "name": "configmap-test",  
    "namespace": "namespace-test",  
    "resourceVersion": "5172849",  
    "selfLink": "/api/v1/namespaces/namespace-test/configmaps/configmap-test",  
    "uid": "379519a3-aff0-11e8-8f17-c81fbe371a17"  
  }  
}
```

## Status Codes

Status Code	Description
200	OK
201	Created
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.2 Pod

### 5.2.1 Deleting Pods in a Namespace

#### Function

This API is used to delete all pods in a specified namespace.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

DELETE /api/v1/namespaces/{namespace}/pods

**Table 5-81** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-82** Query Parameters

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>



Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset

Parameter	Mandatory	Type	Description
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-83** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-84** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-85** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

Status code: 200

**Table 5-86** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-87** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-88** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional.  Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"

Parameter	Type	Description
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-89** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "v1",
  "items": [],
  "kind": "PodList",
  "metadata": {
    "resourceVersion": "5035636",
    "selfLink": "/api/v1/namespaces/namespace-test/pods"
  }
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed



Status Code	Description
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.2.2 Querying Pods in a Namespace

### Function

This API is used to query details about pods in a specified namespace.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /api/v1/namespaces/{namespace}/pods

**Table 5-90** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-91** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-92** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-93** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.core.v1.Pod</a> objects	List of pods. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

**Table 5-94** io.k8s.api.core.v1.Pod

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.PodStatus</a> object	Most recently observed status of the pod. This data may not be up to date. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-95** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints

Parameter	Type	Description
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.



Parameter	Type	Description
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/LocalObjectReference">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/Container">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.

Parameter	Type	Description
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.

Parameter	Type	Description
readinessGate s	Array of <a href="#">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClass Name	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerNa me	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityConte xt	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccoun t	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccoun tName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>

Parameter	Type	Description
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.

Parameter	Type	Description
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-96** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-97** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-98** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-99** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-100** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-101** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-102** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-103** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.



**Table 5-104** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-105** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-106** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-107** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-108** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-109** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-110** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-111** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.



Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-112** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-113** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-114** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-115** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-116** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-117** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-118** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-119** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-120** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-121** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-122** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-123** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-124** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCP socket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-125** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-126** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.



**Table 5-127** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-128** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-129** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-130** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-131** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-132** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-133** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-134** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-135** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-136** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-137** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-138** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-139** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-140** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-141** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>



Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-142** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-143** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-144** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-145** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-146** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-147** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-148** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-149** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-150** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-151** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).



Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-152** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-153** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-154** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-155** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-156** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-157** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.



Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-158** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-159** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-160** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-161** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-162** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-163** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-164** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-165** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-166** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-167** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-168** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-169** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-170** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-171** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-172** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-173** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-174** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-175** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project



Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-176** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-177** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-178** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-179** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-180** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-181** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-182** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-183** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-184** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-185** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-186** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-187** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-188** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-189** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-190** io.k8s.api.core.v1.PodStatus

Parameter	Type	Description
conditions	Array of <a href="#">io.k8s.api.core.v1.PodCondition</a> objects	Current service state of pod. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
containerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per container in the manifest. Each entry is currently the output of <i>docker inspect</i> . More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
ephemeralContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	Status for any ephemeral containers that have run in this pod. This field is alpha-level and is only populated by servers that enable the EphemeralContainers feature.
hostIP	String	IP address of the host to which the pod is assigned. Empty if not yet scheduled.
initContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per init container in the manifest. The most recent successful init container will have ready = true, the most recently started container will have startTime set. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
message	String	A human readable message indicating details about why the pod is in this condition.



Parameter	Type	Description
nominatedNodeName	String	nominatedNodeName is set only when this pod preempts other pods on the node, but it cannot be scheduled right away as preemption victims receive their graceful termination periods. This field does not guarantee that the pod will be scheduled on this node. Scheduler may decide to place the pod elsewhere if other nodes become available sooner. Scheduler may also decide to give the resources on this node to a higher priority pod that is created after preemption. As a result, this field may be different than PodSpec.nodeName when the pod is scheduled.
phase	String	The phase of a Pod is a simple, high-level summary of where the Pod is in its lifecycle. The conditions array, the reason and message fields, and the individual container status arrays contain more detail about the pod's status. There are five possible phase values:  Pending: The pod has been accepted by the Kubernetes system, but one or more of the container images has not been created. This includes time before being scheduled as well as time spent downloading images over the network, which could take a while. Running: The pod has been bound to a node, and all of the containers have been created. At least one container is still running, or is in the process of starting or restarting. Succeeded: All containers in the pod have terminated in success, and will not be restarted. Failed: All containers in the pod have terminated, and at least one container has terminated in failure. The container either exited with non-zero status or was terminated by the system. Unknown: For some reason the state of the pod could not be obtained, typically due to an error in communicating with the host of the pod.  More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase</a>
podIP	String	IP address allocated to the pod. Routable at least within the cluster. Empty if not yet allocated.
podIPs	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/PodIP">io.k8s.api.core.v1.PodIP</a> objects	podIPs holds the IP addresses allocated to the pod. If this field is specified, the 0th entry must match the podIP field. Pods may be allocated at most 1 value for each of IPv4 and IPv6. This list is empty if no IPs have been allocated yet.

Parameter	Type	Description
qosClass	String	The Quality of Service (QOS) classification assigned to the pod based on resource requirements See PodQOSClass type for available QOS classes More info: <a href="https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md">https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md</a>
reason	String	A brief CamelCase message indicating details about why the pod is in this state. e.g. 'Evicted'
startTime	String	RFC 3339 date and time at which the object was acknowledged by the Kubelet. This is before the Kubelet pulled the container image(s) for the pod.

**Table 5-191** io.k8s.api.core.v1.PodCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransition Time	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.
status	String	Status is the status of the condition. Can be True, False, Unknown. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
type	String	Type is the type of the condition. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>

**Table 5-192** io.k8s.api.core.v1.ContainerStatus

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'.
image	String	The image the container is running. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imageID	String	ImageID of the container's image.
lastState	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's last termination condition.
name	String	This must be a DNS_LABEL. Each container in a pod must have a unique name. Cannot be updated.
ready	Boolean	Specifies whether the container has passed its readiness probe.
restartCount	Integer	The number of times the container has been restarted, currently based on the number of dead containers that have not yet been removed. Note that this is calculated from dead containers. But those containers are subject to garbage collection. This value will get capped at 5 by GC.
started	Boolean	Specifies whether the container has passed its startup probe. Initialized as false, becomes true after startupProbe is considered successful. Resets to false when the container is restarted, or if kubelet loses state temporarily. Is always true when no startupProbe is defined.
state	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's current condition.

**Table 5-193** io.k8s.api.core.v1.ContainerState

Parameter	Type	Description
running	<a href="#">io.k8s.api.core.v1.ContainerStateRunning</a> object	Details about a running container
terminated	<a href="#">io.k8s.api.core.v1.ContainerStateTerminated</a> object	Details about a terminated container
waiting	<a href="#">io.k8s.api.core.v1.ContainerStateWaiting</a> object	Details about a waiting container

**Table 5-194** io.k8s.api.core.v1.ContainerStateRunning

Parameter	Type	Description
startedAt	String	Time at which the container was last (re-)started

**Table 5-195** io.k8s.api.core.v1.ContainerStateTerminated

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'
exitCode	Integer	Exit status from the last termination of the container
finishedAt	String	Time at which the container last terminated
message	String	Message regarding the last termination of the container
reason	String	(brief) reason from the last termination of the container
signal	Integer	Signal from the last termination of the container
startedAt	String	Time at which previous execution of the container started

**Table 5-196** io.k8s.api.core.v1.ContainerStateWaiting

Parameter	Type	Description
message	String	Message regarding why the container is not yet running.
reason	String	(brief) reason the container is not yet running.

**Table 5-197** io.k8s.api.core.v1.PodIP

Parameter	Type	Description
ip	String	ip is an IP address (IPv4 or IPv6) assigned to the pod

**Table 5-198** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "v1",
  "items": [ {
    "metadata": {
      "annotations": {
        "cri.cci.io/container-type": "secure-container",
        "kubernetes.io/availablezone": "dc1",
        "network.alpha.kubernetes.io/network": "[{\"name\":\"namespace-test-dc1-default-network\", \"interface\":\"eth0\", \"network_plane\":\"default\"}]"
      },
      "creationTimestamp": "2018-09-03T12:26:12Z",
      "labels": {
        "name": "pod-test"
      },
      "name": "pod-test",
      "namespace": "namespace-test",
      "resourceVersion": "5030610",
      "selfLink": "/api/v1/namespaces/namespace-test/pods/pod-test",
      "uid": "8b985a27-af74-11e8-9d5d-c88d83be759f"
    },
    "spec": {
      "containers": [ {
        "image": "redis",
        "imagePullPolicy": "Always",
        "name": "test",
        "resources": {
          "limits": {
            "cpu": "500m",
            "memory": "1Gi"
          },
          "requests": {
            "cpu": "500m",
            "memory": "1Gi"
          }
        }
      },
      "terminationMessagePath": "/dev/termination-log",
      "terminationMessagePolicy": "File"
    },
    "dnsPolicy": "ClusterFirst",
    "imagePullSecrets": [ {
      "name": "imagepull-secret"
    } ],
    "nodeName": "c0dd6256-195a-e811-90a2-10c17294fcbc",
    "restartPolicy": "Always",
    "schedulerName": "default-scheduler",
    "securityContext": { },
    "tolerations": [ {
      "effect": "NoExecute",
      "key": "node.kubernetes.io/not-ready",
      "operator": "Exists",
      "tolerationSeconds": 300
    }, {
      "effect": "NoExecute",
      "key": "node.kubernetes.io/unreachable",
      "operator": "Exists",
      "tolerationSeconds": 300
    } ]
  } ]
}
```

```

"status": {
  "conditions": [ {
    "lastProbeTime": null,
    "lastTransitionTime": "2018-09-03T12:26:12Z",
    "status": "True",
    "type": "Initialized"
  }, {
    "lastProbeTime": null,
    "lastTransitionTime": "2018-09-03T12:26:16Z",
    "status": "True",
    "type": "Ready"
  }, {
    "lastProbeTime": null,
    "lastTransitionTime": "2018-09-03T12:26:12Z",
    "status": "True",
    "type": "PodScheduled"
  } ],
  "containerStatuses": [ {
    "containerID": "docker://aee55d8dedb8371f96aa5d5116f69a53bf1cb23afe1802567c24081514d3b048",
    "image": "redis",
    "imageID": "docker-pullable://
redis@sha256:3ab7046bd035a47aa06963d8240651d00b57e82dab07ba374ad01f84dfa1230c",
    "lastState": { },
    "name": "test",
    "ready": true,
    "restartCount": 0,
    "state": {
      "running": {
        "startedAt": "2018-09-03T12:26:16Z"
      }
    }
  } ],
  "phase": "Running",
  "podIP": "192.168.245.185",
  "qosClass": "Guaranteed",
  "startTime": "2018-09-03T12:26:12Z"
} ],
"kind": "PodList",
"metadata": {
  "resourceVersion": "5032373",
  "selfLink": "/api/v1/namespaces/namespace-test/pods"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict

Status Code	Description
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.2.3 Creating a Pod

### Function

This API is used to create a pod.

- Each pod has a short lifecycle. It is recommended that you use Deployments, StatefulSets, and jobs to create applications to ensure high availability.
- There are some constraints on pod specifications in CCI. For details, see "Pod Specifications" in "Notes and Constraints" (pro\_ys.xml).
- Drivers 418.126 and 460.106 support NVIDIA GPUs. The CUDA used by your application must meet the requirements listed in the following table, which is obtained from the NVIDIA official website. For details, see "CUDA Compatibility" (<https://docs.nvidia.com/deploy/cuda-compatibility/index.html>).

Compatibility between NVIDIA GPU drivers and CUDA toolkits

NVIDIA GPU driver version	CUDA Toolkit version
418.126	CUDA 10.1 (10.1.105) or earlier
460.106	CUDA 11.2.2 Update 2 or earlier

- If it is a GPU-accelerated pod, add the **cri.cci.io/gpu-driver** field to **metadata.annotations** to specify the GPU driver version. The GPU driver version can be either of the following:
  - gpu-418.126
  - gpu-460.106

### Calling Method

For details, see [Calling APIs](#).



## URI

POST /api/v1/namespaces/{namespace}/pods

**Table 5-199** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-200** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-201** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-202** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Mandatory	Type	Description
spec	No	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	No	<a href="#">io.k8s.api.core.v1.PodStatus</a> object	Most recently observed status of the pod. This data may not be up to date. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-203** io.k8s.api.core.v1.PodSpec

Parameter	Mandatory	Type	Description
activeDeadlineSeconds	No	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	No	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	No	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Yes	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.

Parameter	Mandatory	Type	Description
dnsConfig	No	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	No	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	No	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	No	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.

Parameter	Mandatory	Type	Description
hostAliases	No	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	No	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	No	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	No	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	No	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	No	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>

Parameter	Mandatory	Type	Description
initContainers	No	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	No	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	No	Map<String,String>	nodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Mandatory	Type	Description
overhead	No	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	No	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.

Parameter	Mandatory	Type	Description
priority	No	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	No	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	No	Array of <a href="https://kubernetes.io/api-references/api-groups/generated/kubernetes.io/v1/#podreadinessgate-object">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	No	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>



Parameter	Mandatory	Type	Description
runtimeClassName	No	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	No	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	No	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	No	String	DeprecatedServiceAccount is a depreciated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	No	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>

Parameter	Mandatory	Type	Description
setHostnameAsFQDN	No	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	No	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	No	String	If specified, the fully qualified Pod hostname will be "[hostname/]subdomain". If not specified, the pod will not have a domainname at all.

Parameter	Mandatory	Type	Description
terminationGracePeriodSeconds	No	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	No	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	No	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	No	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-204** io.k8s.api.core.v1.Affinity

Parameter	Mandatory	Type	Description
nodeAffinity	No	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Mandatory	Type	Description
podAffinity	No	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	No	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-205** io.k8s.api.core.v1.NodeAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Mandatory	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	No	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-206** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Mandatory	Type	Description
preference	Yes	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Yes	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-207** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	No	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-208** io.k8s.api.core.v1.NodeSelector

Parameter	Mandatory	Type	Description
nodeSelectorTerms	Yes	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-209** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	The label key that the selector applies to.
operator	Yes	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist, Gt, and Lt.
values	No	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-210** io.k8s.api.core.v1.PodAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-211** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.



**Table 5-212** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Mandatory	Type	Description
podAffinityTerm	Yes	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Yes	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-213** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Mandatory	Type	Description
labelSelector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	No	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	Yes	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-214** io.k8s.api.core.v1.PodDNSConfig

Parameter	Mandatory	Type	Description
nameservers	No	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	No	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	No	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-215** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Mandatory	Type	Description
name	No	String	Required.
value	No	String	value is the value of the option

**Table 5-216** io.k8s.api.core.v1.EphemeralContainer

Parameter	Mandatory	Type	Description
args	No	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	No	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	No	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.

Parameter	Mandatory	Type	Description
envFrom	No	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	No	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	No	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	No	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	Yes	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	No	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.

Parameter	Mandatory	Type	Description
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	No	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	No	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	No	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false

Parameter	Mandatory	Type	Description
targetContainerName	No	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	No	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	No	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	No	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Mandatory	Type	Description
volumeDevices	No	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	No	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	No	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-217** io.k8s.api.core.v1.HostAlias

Parameter	Mandatory	Type	Description
hostnames	No	Array of strings	Hostnames for the above IP address.
ip	No	String	IP address of the host file entry.

**Table 5-218** io.k8s.api.core.v1.LocalObjectReference

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-219** io.k8s.api.core.v1.Container

Parameter	Mandatory	Type	Description
args	No	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	No	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	No	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.



Parameter	Mandatory	Type	Description
envFrom	No	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	No	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	No	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	No	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	No	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
securityContext	No	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>

Parameter	Mandatory	Type	Description
startupProbe	No	<a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	No	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	No	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false

Parameter	Mandatory	Type	Description
terminationMessagePath	No	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	No	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	No	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	No	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	No	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.

Parameter	Mandatory	Type	Description
workingDir	No	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-220** io.k8s.api.core.v1.EnvVar

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	No	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".
valueFrom	No	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-221** io.k8s.api.core.v1.EnvVarSource

Parameter	Mandatory	Type	Description
configMapKeyRef	No	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.

Parameter	Mandatory	Type	Description
fieldRef	No	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports metadata.name, metadata.namespace, <i>metadata.labels['&lt;KEY&gt;']</i> , <i>metadata.annotations['&lt;KEY&gt;']</i> , spec.nodeName, spec.serviceAccountName, status.hostIP, status.podIP, status.podIPs.
resourceFieldRef	No	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	No	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-222** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Mandatory	Type	Description
key	Yes	String	The key to select.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-223** io.k8s.api.core.v1.SecretKeySelector

Parameter	Mandatory	Type	Description
key	Yes	String	The key of the secret to select from. Must be a valid secret key.

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret or its key must be defined

**Table 5-224** io.k8s.api.core.v1.EnvFromSource

Parameter	Mandatory	Type	Description
configMapRef	No	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	No	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	No	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-225** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap must be defined

**Table 5-226** io.k8s.api.core.v1.SecretEnvSource

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret must be defined

**Table 5-227** io.k8s.api.core.v1.Lifecycle

Parameter	Mandatory	Type	Description
postStart	No	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>



Parameter	Mandatory	Type	Description
preStop	No	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-228** io.k8s.api.core.v1.Handler

Parameter	Mandatory	Type	Description
exec	No	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	No	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
tcpSocket	No	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-229** io.k8s.api.core.v1.ContainerPort

Parameter	Mandatory	Type	Description
containerPort	Yes	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, $0 < x < 65536$ .
hostIP	No	String	What host IP to bind the external port to.
hostPort	No	Integer	Number of port to expose on the host. If specified, this must be a valid port number, $0 < x < 65536$ . If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	No	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	No	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-230** io.k8s.api.core.v1.SecurityContext

Parameter	Mandatory	Type	Description
allowPrivilegeEscalation	No	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN

Parameter	Mandatory	Type	Description
capabilities	No	<a href="https://kubernetes.io/api-reference/v1/objects/capabilities">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	No	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.
procMount	No	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	No	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	No	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

Parameter	Mandatory	Type	Description
runAsUser	No	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	No	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	No	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.
windowsOptions	No	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-231** io.k8s.api.core.v1.Capabilities

Parameter	Mandatory	Type	Description
add	No	Array of strings	Added capabilities
drop	No	Array of strings	Removed capabilities

**Table 5-232** io.k8s.api.core.v1.Probe

Parameter	Mandatory	Type	Description
exec	No	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	No	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	No	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	No	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	No	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	No	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.
tcpSocket	No	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	No	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-233** io.k8s.api.core.v1.ExecAction

Parameter	Mandatory	Type	Description
command	No	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-234** io.k8s.api.core.v1.HTTPGetAction

Parameter	Mandatory	Type	Description
host	No	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	No	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	No	String	Path to access on the HTTP server.
port	Yes	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	No	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-235** io.k8s.api.core.v1.HTTPHeader

Parameter	Mandatory	Type	Description
name	Yes	String	The header field name

Parameter	Mandatory	Type	Description
value	Yes	String	The header field value

**Table 5-236** io.k8s.api.core.v1.TCPSocketAction

Parameter	Mandatory	Type	Description
host	No	String	Optional: Host name to connect to, defaults to the pod IP.
port	Yes	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-237** io.k8s.api.core.v1.VolumeDevice

Parameter	Mandatory	Type	Description
devicePath	Yes	String	devicePath is the path inside of the container that the device will be mapped to.
name	Yes	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-238** io.k8s.api.core.v1.VolumeMount

Parameter	Mandatory	Type	Description
extendPathMode	No	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	Yes	String	Path within the container at which the volume should be mounted. Must not contain '!'.

Parameter	Mandatory	Type	Description
mountPropagation	No	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	Yes	String	This must match the Name of a Volume.
policy	No	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	No	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	No	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	No	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$ (VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-239** io.k8s.api.core.v1.Policy

Parameter	Mandatory	Type	Description
logs	No	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.



**Table 5-240** io.k8s.api.core.v1.Logs

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations for log.
rotate	Yes	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-241** io.k8s.api.core.v1.PodReadinessGate

Parameter	Mandatory	Type	Description
conditionType	Yes	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-242** io.k8s.api.core.v1.PodSecurityContext

Parameter	Mandatory	Type	Description
fsGroup	No	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>

Parameter	Mandatory	Type	Description
fsGroupChangePolicy	No	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	No	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

Parameter	Mandatory	Type	Description
runAsUser	No	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seLinuxOptions	No	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	No	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	No	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	No	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	No	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-243** io.k8s.api.core.v1.SELinuxOptions

Parameter	Mandatory	Type	Description
level	No	String	Level is SELinux level label that applies to the container.
role	No	String	Role is a SELinux role label that applies to the container.
type	No	String	Type is a SELinux type label that applies to the container.
user	No	String	User is a SELinux user label that applies to the container.

**Table 5-244** io.k8s.api.core.v1.SeccompProfile

Parameter	Mandatory	Type	Description
localhostProfile	No	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	Yes	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-245** io.k8s.api.core.v1.Sysctl

Parameter	Mandatory	Type	Description
name	Yes	String	Name of a property to set
value	Yes	String	Value of a property to set

**Table 5-246** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Mandatory	Type	Description
gmsaCredentialSpec	No	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	No	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	No	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-247** io.k8s.api.core.v1.Toleration

Parameter	Mandatory	Type	Description
effect	No	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	No	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.

Parameter	Mandatory	Type	Description
operator	No	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	No	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	No	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-248** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Mandatory	Type	Description
labelSelector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Mandatory	Type	Description
maxSkew	Yes	Integer	<p>MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i>, it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3     P   P     - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1 (zone2) would make the ActualSkew(2-0) on zone1 (zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i>, it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.</p>
topologyKey	Yes	String	<p>TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each &lt;key, value&gt; as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.</p>

Parameter	Mandatory	Type	Description
whenUnsatisfiable	Yes	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3     P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-249** io.k8s.api.core.v1.Volume

Parameter	Mandatory	Type	Description
awsElasticBlockStore	No	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>



Parameter	Mandatory	Type	Description
azureDisk	No	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	No	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	No	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	No	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	No	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	No	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	No	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	No	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Mandatory	Type	Description
ephemeral	No	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	No	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	<p>FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.</p>
flexVolume	No	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	<p>FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.</p>

Parameter	Mandatory	Type	Description
flocker	No	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	No	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
gitRepo	No	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	No	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	No	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	No	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>

Parameter	Mandatory	Type	Description
localDir	No	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	Yes	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	No	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	No	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine
portworxVolume	No	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	No	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	No	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime

Parameter	Mandatory	Type	Description
rbd	No	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	No	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	No	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	No	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	No	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-250** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

Parameter	Mandatory	Type	Description
partition	No	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	No	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	Yes	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-251** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Mandatory	Type	Description
cachingMode	No	String	Host Caching mode: None, Read Only, Read Write.
diskName	Yes	String	The Name of the data disk in the blob storage
diskURI	Yes	String	The URI the data disk in the blob storage
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.

Parameter	Mandatory	Type	Description
kind	No	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-252** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	Yes	String	the name of secret that contains Azure Storage Account Name and Key
shareName	Yes	String	Share Name

**Table 5-253** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Mandatory	Type	Description
monitors	Yes	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	No	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	No	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a>	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	No	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-254** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>



Parameter	Mandatory	Type	Description
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	Yes	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-255** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-256** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Mandatory	Type	Description
driver	Yes	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	No	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	No	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Mandatory	Type	Description
volumeAttributes	No	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-257** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	No	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-258** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Mandatory	Type	Description
medium	No	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	No	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-259** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Mandatory	Type	Description
volumeClaimTemplate	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-260** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Mandatory	Type	Description
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	Yes	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-261** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Mandatory	Type	Description
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>



Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-262** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-263** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-264** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Mandatory	Type	Description
dataSource	No	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	No	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>

Parameter	Mandatory	Type	Description
volumeMode	No	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	No	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-265** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Mandatory	Type	Description
apiGroup	No	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	Yes	String	Kind is the type of resource being referenced
name	Yes	String	Name is the name of resource being referenced

**Table 5-266** io.k8s.api.core.v1.ResourceRequirements

Parameter	Mandatory	Type	Description
limits	No	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>



Parameter	Mandatory	Type	Description
requests	No	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-267** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	No	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-268** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	key is the label key that the selector applies to.
operator	Yes	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.

Parameter	Mandatory	Type	Description
values	No	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-269** io.k8s.api.core.v1.FCVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	No	Integer	Optional: FC target lun number
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	No	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	No	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-270** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Mandatory	Type	Description
driver	Yes	String	Driver is the name of the driver to use for this volume.

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	No	Map<String,String>	Optional: Extra command options if any.
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-271** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Mandatory	Type	Description
datasetName	No	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	No	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-272** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	No	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	Yes	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-273** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Mandatory	Type	Description
directory	No	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	Yes	String	Repository URL
revision	No	String	Commit hash for the specified revision.

**Table 5-274** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Mandatory	Type	Description
endpoints	Yes	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	Yes	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	No	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-275** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Mandatory	Type	Description
path	Yes	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
type	No	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-276** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Mandatory	Type	Description
chapAuthDiscovery	No	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	No	Boolean	whether support iSCSI Session CHAP authentication
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	No	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br):[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) will be created for the connection.
iqn	Yes	String	Target iSCSI Qualified Name.

Parameter	Mandatory	Type	Description
iscsiInterface	No	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Yes	Integer	iSCSI Target Lun number.
portals	No	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	No	<a href="https://kubernetes.io/api-reference/v1/objects/LocalObjectReference">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	Yes	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-277** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Mandatory	Type	Description
sizeLimit	No	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) (Note that [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) may be empty, from the "" case in [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= 0   1   ...   9 [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).   .[/topic/body/section/</p>



Parameter	Mandatory	Type	Description
			<p>table/tgroup/tbody/row/entry/p/br {""} (br) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= "+"   "-" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= "e" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   "E" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2^63-1</p>

Parameter	Mandatory	Type	Description
			<p>in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that will cause implementors to also use a fixed point implementation.</p>

**Table 5-278** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Mandatory	Type	Description
path	Yes	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	No	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	Yes	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-279** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Mandatory	Type	Description
claimName	Yes	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	No	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-280** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	Yes	String	ID that identifies Photon Controller persistent disk

**Table 5-281** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	FSType represents the filesystem type to mount Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	Yes	String	VolumeID uniquely identifies a Portworx volume

**Table 5-282** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Yes	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-283** io.k8s.api.core.v1.VolumeProjection

Parameter	Mandatory	Type	Description
configMap	No	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	No	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project
secret	No	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	No	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-284** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-285** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-286** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Mandatory	Type	Description
fieldRef	No	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.

Parameter	Mandatory	Type	Description
mode	No	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	Yes	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	No	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-287** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Mandatory	Type	Description
apiVersion	No	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	Yes	String	Path of the field to select in the specified API version.

**Table 5-288** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Mandatory	Type	Description
containerName	No	String	Container name: required for volumes, optional for env vars

Parameter	Mandatory	Type	Description
divisor	No	String	Specifies the output format of the exposed resources, defaults to "1"
resource	Yes	String	Required: resource to select

**Table 5-289** io.k8s.api.core.v1.SecretProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret or its key must be defined



**Table 5-290** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Mandatory	Type	Description
audience	No	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	No	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	Yes	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-291** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Mandatory	Type	Description
group	No	String	Group to map volume access to Default is no group
readOnly	No	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	Yes	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes

Parameter	Mandatory	Type	Description
tenant	No	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	No	String	User to map volume access to Defaults to serviceaccount user
volume	Yes	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-292** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	Yes	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	No	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Yes	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
pool	No	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	No	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-293** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	Yes	String	The host address of the ScaleIO API Gateway.
protectionDomain	No	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	Yes	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	No	Boolean	Flag to enable/disable SSL communication with Gateway, default false

Parameter	Mandatory	Type	Description
storageMode	No	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	No	String	The ScaleIO Storage Pool associated with the protection domain.
system	Yes	String	The name of the storage system as configured in ScaleIO.
volumeName	No	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-294** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.

Parameter	Mandatory	Type	Description
items	No	Array of <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	No	Boolean	Specify whether the Secret or its keys must be defined
secretName	No	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-295** io.k8s.api.core.v1.KeyToPath

Parameter	Mandatory	Type	Description
key	Yes	String	The key to project.
mode	No	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.

Parameter	Mandatory	Type	Description
path	Yes	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-296** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	No	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.

Parameter	Mandatory	Type	Description
volumeNamespace	No	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-297** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	No	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	No	String	Storage Policy Based Management (SPBM) profile name.
volumePath	Yes	String	Path that identifies vSphere volume vmdk

**Table 5-298** io.k8s.api.core.v1.PodStatus

Parameter	Mandatory	Type	Description
conditions	No	Array of <a href="#">io.k8s.api.core.v1.PodCondition</a> objects	Current service state of pod. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
containerStatuses	No	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per container in the manifest. Each entry is currently the output of <i>docker inspect</i> . More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
ephemeralContainerStatuses	No	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	Status for any ephemeral containers that have run in this pod. This field is alpha-level and is only populated by servers that enable the EphemeralContainers feature.
hostIP	No	String	IP address of the host to which the pod is assigned. Empty if not yet scheduled.
initContainerStatuses	No	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per init container in the manifest. The most recent successful init container will have ready = true, the most recently started container will have startTime set. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
message	No	String	A human readable message indicating details about why the pod is in this condition.



Parameter	Mandatory	Type	Description
nominatedNodeName	No	String	nominatedNodeName is set only when this pod preempts other pods on the node, but it cannot be scheduled right away as preemption victims receive their graceful termination periods. This field does not guarantee that the pod will be scheduled on this node. Scheduler may decide to place the pod elsewhere if other nodes become available sooner. Scheduler may also decide to give the resources on this node to a higher priority pod that is created after preemption. As a result, this field may be different than PodSpec.nodeName when the pod is scheduled.

Parameter	Mandatory	Type	Description
phase	No	String	<p>The phase of a Pod is a simple, high-level summary of where the Pod is in its lifecycle. The conditions array, the reason and message fields, and the individual container status arrays contain more detail about the pod's status. There are five possible phase values:</p> <p>Pending: The pod has been accepted by the Kubernetes system, but one or more of the container images has not been created. This includes time before being scheduled as well as time spent downloading images over the network, which could take a while. Running: The pod has been bound to a node, and all of the containers have been created. At least one container is still running, or is in the process of starting or restarting. Succeeded: All containers in the pod have terminated in success, and will not be restarted. Failed: All containers in the pod have terminated, and at least one container has terminated in failure. The container either exited with non-zero status or was terminated by the system. Unknown: For some reason the state of the pod could not be obtained, typically due to an error in communicating with the host of the pod.</p> <p>More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase</a></p>
podIP	No	String	IP address allocated to the pod. Routable at least within the cluster. Empty if not yet allocated.

Parameter	Mandatory	Type	Description
podIPs	No	Array of <a href="https://kubernetes.io/api-reference/v1/objects/PodIP">io.k8s.api.core.v1.PodIP</a> objects	podIPs holds the IP addresses allocated to the pod. If this field is specified, the 0th entry must match the podIP field. Pods may be allocated at most 1 value for each of IPv4 and IPv6. This list is empty if no IPs have been allocated yet.
qosClass	No	String	The Quality of Service (QOS) classification assigned to the pod based on resource requirements See PodQOSClass type for available QOS classes More info: <a href="https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md">https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md</a>
reason	No	String	A brief CamelCase message indicating details about why the pod is in this state. e.g. 'Evicted'
startTime	No	String	RFC 3339 date and time at which the object was acknowledged by the Kubelet. This is before the Kubelet pulled the container image(s) for the pod.

**Table 5-299** io.k8s.api.core.v1.PodCondition

Parameter	Mandatory	Type	Description
lastProbeTime	No	String	Last time we probed the condition.
lastTransitionTime	No	String	Last time the condition transitioned from one status to another.
message	No	String	Human-readable message indicating details about last transition.
reason	No	String	Unique, one-word, CamelCase reason for the condition's last transition.

Parameter	Mandatory	Type	Description
status	Yes	String	Status is the status of the condition. Can be True, False, Unknown. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
type	Yes	String	Type is the type of the condition. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>

**Table 5-300** io.k8s.api.core.v1.ContainerStatus

Parameter	Mandatory	Type	Description
containerID	No	String	Container's ID in the format 'docker://<container_id>'.
image	Yes	String	The image the container is running. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imageID	Yes	String	ImageID of the container's image.
lastState	No	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's last termination condition.
name	Yes	String	This must be a DNS_LABEL. Each container in a pod must have a unique name. Cannot be updated.
ready	Yes	Boolean	Specifies whether the container has passed its readiness probe.

Parameter	Mandatory	Type	Description
restartCount	Yes	Integer	The number of times the container has been restarted, currently based on the number of dead containers that have not yet been removed. Note that this is calculated from dead containers. But those containers are subject to garbage collection. This value will get capped at 5 by GC.
started	No	Boolean	Specifies whether the container has passed its startup probe. Initialized as false, becomes true after startupProbe is considered successful. Resets to false when the container is restarted, or if kubelet loses state temporarily. Is always true when no startupProbe is defined.
state	No	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's current condition.

**Table 5-301** io.k8s.api.core.v1.ContainerState

Parameter	Mandatory	Type	Description
running	No	<a href="#">io.k8s.api.core.v1.ContainerStateRunning</a> object	Details about a running container
terminated	No	<a href="#">io.k8s.api.core.v1.ContainerStateTerminated</a> object	Details about a terminated container
waiting	No	<a href="#">io.k8s.api.core.v1.ContainerStateWaiting</a> object	Details about a waiting container

**Table 5-302** io.k8s.api.core.v1.ContainerStateRunning

Parameter	Mandatory	Type	Description
startedAt	No	String	Time at which the container was last (re-)started

**Table 5-303** io.k8s.api.core.v1.ContainerStateTerminated

Parameter	Mandatory	Type	Description
containerID	No	String	Container's ID in the format 'docker://<container_id>'
exitCode	Yes	Integer	Exit status from the last termination of the container
finishedAt	No	String	Time at which the container last terminated
message	No	String	Message regarding the last termination of the container
reason	No	String	(brief) reason from the last termination of the container
signal	No	Integer	Signal from the last termination of the container
startedAt	No	String	Time at which previous execution of the container started

**Table 5-304** io.k8s.api.core.v1.ContainerStateWaiting

Parameter	Mandatory	Type	Description
message	No	String	Message regarding why the container is not yet running.
reason	No	String	(brief) reason the container is not yet running.

**Table 5-305** io.k8s.api.core.v1.PodIP

Parameter	Mandatory	Type	Description
ip	No	String	ip is an IP address (IPv4 or IPv6) assigned to the pod

## Response Parameters

Status code: 200

**Table 5-306** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.PodStatus</a> object	Most recently observed status of the pod. This data may not be up to date. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-307** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.

Parameter	Type	Description
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.



Parameter	Type	Description
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/LocalObjectReference">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/Container">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.

Parameter	Type	Description
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.

Parameter	Type	Description
readinessGate s	Array of <a href="#">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClass Name	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>

Parameter	Type	Description
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "[hostname/]podname[.subdomain].svc.cluster.local". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="https://kubernetes.io/api-references/api-groups/versioned/#io.k8s.api.core.v1.Toleration">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.

Parameter	Type	Description
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-308** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-309** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-310** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-311** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-312** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-313** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-314** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-315** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.



**Table 5-316** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-317** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-318** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-319** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-320** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-321** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-322** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-323** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.



Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-324** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-325** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-326** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-327** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-328** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-329** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-330** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-331** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-332** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-333** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-334** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-335** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-336** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCP socket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-337** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-338** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.



**Table 5-339** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-340** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-341** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-342** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-343** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-344** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-345** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-346** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-347** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-348** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-349** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-350** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-351** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-352** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-353** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>



Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-354** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-355** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-356** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-357** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-358** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-359** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-360** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-361** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-362** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-363** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).



Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-364** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-365** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-366** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-367** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-368** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-369** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.



Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-370** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-371** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-372** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-373** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-374** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-375** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-376** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-377** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-378** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-379** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-380** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br):[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-381** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) (Note that [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) may be empty, from the "" case in [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= 0   1   ...   9 [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   .[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   .[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= "+"   "-" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) [/topic/body/section/table/tgroup/</p>

Parameter	Type	Description
		<p>tbody/row/entry/p/br {""}) (br ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br ::= "e" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br   "E" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that will cause implementors to also use a fixed point implementation.</p>

**Table 5-382** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-383** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-384** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-385** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.



Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-386** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-387** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project

Parameter	Type	Description
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountProjection</a> object	information about the serviceAccountToken data to project

**Table 5-388** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-389** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-390** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-391** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-392** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-393** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-394** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-395** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-396** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-397** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-398** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-399** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-400** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.



**Table 5-401** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-402** io.k8s.api.core.v1.PodStatus

Parameter	Type	Description
conditions	Array of <a href="#">io.k8s.api.core.v1.PodCondition</a> objects	Current service state of pod. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
containerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per container in the manifest. Each entry is currently the output of <i>docker inspect</i> . More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
ephemeralContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	Status for any ephemeral containers that have run in this pod. This field is alpha-level and is only populated by servers that enable the EphemeralContainers feature.
hostIP	String	IP address of the host to which the pod is assigned. Empty if not yet scheduled.
initContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per init container in the manifest. The most recent successful init container will have ready = true, the most recently started container will have startTime set. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
message	String	A human readable message indicating details about why the pod is in this condition.

Parameter	Type	Description
nominatedNodeName	String	nominatedNodeName is set only when this pod preempts other pods on the node, but it cannot be scheduled right away as preemption victims receive their graceful termination periods. This field does not guarantee that the pod will be scheduled on this node. Scheduler may decide to place the pod elsewhere if other nodes become available sooner. Scheduler may also decide to give the resources on this node to a higher priority pod that is created after preemption. As a result, this field may be different than PodSpec.nodeName when the pod is scheduled.
phase	String	The phase of a Pod is a simple, high-level summary of where the Pod is in its lifecycle. The conditions array, the reason and message fields, and the individual container status arrays contain more detail about the pod's status. There are five possible phase values:  Pending: The pod has been accepted by the Kubernetes system, but one or more of the container images has not been created. This includes time before being scheduled as well as time spent downloading images over the network, which could take a while. Running: The pod has been bound to a node, and all of the containers have been created. At least one container is still running, or is in the process of starting or restarting. Succeeded: All containers in the pod have terminated in success, and will not be restarted. Failed: All containers in the pod have terminated, and at least one container has terminated in failure. The container either exited with non-zero status or was terminated by the system. Unknown: For some reason the state of the pod could not be obtained, typically due to an error in communicating with the host of the pod.  More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase</a>
podIP	String	IP address allocated to the pod. Routable at least within the cluster. Empty if not yet allocated.
podIPs	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/PodIP">io.k8s.api.core.v1.PodIP</a> objects	podIPs holds the IP addresses allocated to the pod. If this field is specified, the 0th entry must match the podIP field. Pods may be allocated at most 1 value for each of IPv4 and IPv6. This list is empty if no IPs have been allocated yet.

Parameter	Type	Description
qosClass	String	The Quality of Service (QOS) classification assigned to the pod based on resource requirements See PodQOSClass type for available QOS classes More info: <a href="https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md">https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md</a>
reason	String	A brief CamelCase message indicating details about why the pod is in this state. e.g. 'Evicted'
startTime	String	RFC 3339 date and time at which the object was acknowledged by the Kubelet. This is before the Kubelet pulled the container image(s) for the pod.

**Table 5-403** io.k8s.api.core.v1.PodCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransition Time	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.
status	String	Status is the status of the condition. Can be True, False, Unknown. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
type	String	Type is the type of the condition. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>

**Table 5-404** io.k8s.api.core.v1.ContainerStatus

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'.
image	String	The image the container is running. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imageID	String	ImageID of the container's image.
lastState	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's last termination condition.
name	String	This must be a DNS_LABEL. Each container in a pod must have a unique name. Cannot be updated.
ready	Boolean	Specifies whether the container has passed its readiness probe.
restartCount	Integer	The number of times the container has been restarted, currently based on the number of dead containers that have not yet been removed. Note that this is calculated from dead containers. But those containers are subject to garbage collection. This value will get capped at 5 by GC.
started	Boolean	Specifies whether the container has passed its startup probe. Initialized as false, becomes true after startupProbe is considered successful. Resets to false when the container is restarted, or if kubelet loses state temporarily. Is always true when no startupProbe is defined.
state	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's current condition.

**Table 5-405** io.k8s.api.core.v1.ContainerState

Parameter	Type	Description
running	<a href="#">io.k8s.api.core.v1.ContainerStateRunning</a> object	Details about a running container
terminated	<a href="#">io.k8s.api.core.v1.ContainerStateTerminated</a> object	Details about a terminated container
waiting	<a href="#">io.k8s.api.core.v1.ContainerStateWaiting</a> object	Details about a waiting container

**Table 5-406** io.k8s.api.core.v1.ContainerStateRunning

Parameter	Type	Description
startedAt	String	Time at which the container was last (re-)started

**Table 5-407** io.k8s.api.core.v1.ContainerStateTerminated

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'
exitCode	Integer	Exit status from the last termination of the container
finishedAt	String	Time at which the container last terminated
message	String	Message regarding the last termination of the container
reason	String	(brief) reason from the last termination of the container
signal	Integer	Signal from the last termination of the container
startedAt	String	Time at which previous execution of the container started

**Table 5-408** io.k8s.api.core.v1.ContainerStateWaiting

Parameter	Type	Description
message	String	Message regarding why the container is not yet running.
reason	String	(brief) reason the container is not yet running.

**Table 5-409** io.k8s.api.core.v1.PodIP

Parameter	Type	Description
ip	String	ip is an IP address (IPv4 or IPv6) assigned to the pod

**Status code: 201**

**Table 5-410** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.PodStatus</a> object	Most recently observed status of the pod. This data may not be up to date. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-411** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints

Parameter	Type	Description
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.

Parameter	Type	Description
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.



Parameter	Type	Description
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.

Parameter	Type	Description
readinessGate s	Array of <a href="#">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClass Name	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerNa me	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityConte xt	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccoun t	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccoun tName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>

Parameter	Type	Description
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "[hostname/]([subdomain].[subdomain]...svc.[subdomain]...).podname". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="https://kubernetes.io/api-references/api-groups/versioned/#io.k8s.api.core.v1.Toleration">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.

Parameter	Type	Description
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-412** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-413** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-414** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-415** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-416** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-417** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-418** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-419** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringSchedulingIgnoredDuringExecution anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-420** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-421** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-422** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.



Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-423** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-424** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-425** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-426** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-427** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-428** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".



Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-429** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-430** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-431** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-432** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-433** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-434** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-435** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-436** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-437** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-438** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-439** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-440** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-441** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-442** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-443** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-444** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-445** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-446** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'. Must not contain '..'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.



Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-447** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-448** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-449** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-450** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-451** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-452** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-453** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-454** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-455** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-456** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-457** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>



Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-458** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-459** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-460** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-461** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-462** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-463** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-464** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-465** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-466** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-467** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-468** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.



**Table 5-469** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed.</p> <p>Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-470** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-471** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-472** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-473** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-474** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-475** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-476** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.



Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-477** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-478** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-479** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-480** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-481** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-482** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-483** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-484** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br):[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).



Parameter	Type	Description
		<p>tbody/row/entry/p/br {""}) (br ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br ::= "e" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br   "E" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that will cause implementors to also use a fixed point implementation.</p>

**Table 5-486** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-487** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-488** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-489** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-490** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-491** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project



Parameter	Type	Description
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-492** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-493** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-494** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-495** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-496** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-497** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-498** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-499** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-500** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-501** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-502** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-503** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-504** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-505** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-506** io.k8s.api.core.v1.PodStatus

Parameter	Type	Description
conditions	Array of <a href="#">io.k8s.api.core.v1.PodCondition</a> objects	Current service state of pod. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
containerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per container in the manifest. Each entry is currently the output of <i>docker inspect</i> . More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
ephemeralContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	Status for any ephemeral containers that have run in this pod. This field is alpha-level and is only populated by servers that enable the EphemeralContainers feature.
hostIP	String	IP address of the host to which the pod is assigned. Empty if not yet scheduled.
initContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per init container in the manifest. The most recent successful init container will have ready = true, the most recently started container will have startTime set. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
message	String	A human readable message indicating details about why the pod is in this condition.



Parameter	Type	Description
nominatedNodeName	String	nominatedNodeName is set only when this pod preempts other pods on the node, but it cannot be scheduled right away as preemption victims receive their graceful termination periods. This field does not guarantee that the pod will be scheduled on this node. Scheduler may decide to place the pod elsewhere if other nodes become available sooner. Scheduler may also decide to give the resources on this node to a higher priority pod that is created after preemption. As a result, this field may be different than PodSpec.nodeName when the pod is scheduled.
phase	String	The phase of a Pod is a simple, high-level summary of where the Pod is in its lifecycle. The conditions array, the reason and message fields, and the individual container status arrays contain more detail about the pod's status. There are five possible phase values:  Pending: The pod has been accepted by the Kubernetes system, but one or more of the container images has not been created. This includes time before being scheduled as well as time spent downloading images over the network, which could take a while. Running: The pod has been bound to a node, and all of the containers have been created. At least one container is still running, or is in the process of starting or restarting. Succeeded: All containers in the pod have terminated in success, and will not be restarted. Failed: All containers in the pod have terminated, and at least one container has terminated in failure. The container either exited with non-zero status or was terminated by the system. Unknown: For some reason the state of the pod could not be obtained, typically due to an error in communicating with the host of the pod.  More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase</a>
podIP	String	IP address allocated to the pod. Routable at least within the cluster. Empty if not yet allocated.
podIPs	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/PodIP">io.k8s.api.core.v1.PodIP</a> objects	podIPs holds the IP addresses allocated to the pod. If this field is specified, the 0th entry must match the podIP field. Pods may be allocated at most 1 value for each of IPv4 and IPv6. This list is empty if no IPs have been allocated yet.

Parameter	Type	Description
qosClass	String	The Quality of Service (QOS) classification assigned to the pod based on resource requirements See PodQOSClass type for available QOS classes More info: <a href="https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md">https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md</a>
reason	String	A brief CamelCase message indicating details about why the pod is in this state. e.g. 'Evicted'
startTime	String	RFC 3339 date and time at which the object was acknowledged by the Kubelet. This is before the Kubelet pulled the container image(s) for the pod.

**Table 5-507** io.k8s.api.core.v1.PodCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransition Time	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.
status	String	Status is the status of the condition. Can be True, False, Unknown. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
type	String	Type is the type of the condition. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>

**Table 5-508** io.k8s.api.core.v1.ContainerStatus

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'.
image	String	The image the container is running. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imageID	String	ImageID of the container's image.
lastState	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's last termination condition.
name	String	This must be a DNS_LABEL. Each container in a pod must have a unique name. Cannot be updated.
ready	Boolean	Specifies whether the container has passed its readiness probe.
restartCount	Integer	The number of times the container has been restarted, currently based on the number of dead containers that have not yet been removed. Note that this is calculated from dead containers. But those containers are subject to garbage collection. This value will get capped at 5 by GC.
started	Boolean	Specifies whether the container has passed its startup probe. Initialized as false, becomes true after startupProbe is considered successful. Resets to false when the container is restarted, or if kubelet loses state temporarily. Is always true when no startupProbe is defined.
state	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's current condition.

**Table 5-509** io.k8s.api.core.v1.ContainerState

Parameter	Type	Description
running	<a href="#">io.k8s.api.core.v1.ContainerStateRunning</a> object	Details about a running container
terminated	<a href="#">io.k8s.api.core.v1.ContainerStateTerminated</a> object	Details about a terminated container
waiting	<a href="#">io.k8s.api.core.v1.ContainerStateWaiting</a> object	Details about a waiting container

**Table 5-510** io.k8s.api.core.v1.ContainerStateRunning

Parameter	Type	Description
startedAt	String	Time at which the container was last (re-)started

**Table 5-511** io.k8s.api.core.v1.ContainerStateTerminated

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'
exitCode	Integer	Exit status from the last termination of the container
finishedAt	String	Time at which the container last terminated
message	String	Message regarding the last termination of the container
reason	String	(brief) reason from the last termination of the container
signal	Integer	Signal from the last termination of the container
startedAt	String	Time at which previous execution of the container started

**Table 5-512** io.k8s.api.core.v1.ContainerStateWaiting

Parameter	Type	Description
message	String	Message regarding why the container is not yet running.
reason	String	(brief) reason the container is not yet running.

**Table 5-513** io.k8s.api.core.v1.PodIP

Parameter	Type	Description
ip	String	ip is an IP address (IPv4 or IPv6) assigned to the pod

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**Table 5-514** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.PodStatus</a> object	Most recently observed status of the pod. This data may not be up to date. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-515** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints

Parameter	Type	Description
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.

Parameter	Type	Description
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/LocalObjectReference">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/Container">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.

Parameter	Type	Description
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.



Parameter	Type	Description
readinessGate s	Array of <a href="#">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClass Name	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerNa me	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityConte xt	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccoun t	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccoun tName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>

Parameter	Type	Description
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "[topic/body/section/table/tgroup/tbody/row/entry/p/br {}] (br).[topic/body/section/table/tgroup/tbody/row/entry/p/br {}] (br).[topic/body/section/table/tgroup/tbody/row/entry/p/br {}] (br).svc.[topic/body/section/table/tgroup/tbody/row/entry/p/br {}] (br)". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="https://kubernetes.io/api-references/api-groups/versioned/#io.k8s.api.core.v1.Toleration">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.

Parameter	Type	Description
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-516** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-517** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-518** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-519** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-520** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-521** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-522** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-523** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringSchedulingIgnoredDuringExecution anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-524** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-525** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-526** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-527** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-528** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>



Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-529** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-530** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-531** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-532** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-533** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-534** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined



**Table 5-535** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-536** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-537** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-538** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-539** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-540** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-541** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-542** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-543** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-544** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCP socket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-545** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-546** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-547** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-548** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-549** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-550** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'. Must not contain '..'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-551** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-552** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-553** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.



**Table 5-554** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-555** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-556** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-557** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-558** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-559** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-560** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-561** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine



Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-562** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-563** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-564** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-565** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-566** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-567** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-568** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-569** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-570** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-571** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-572** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-573** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.



Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-574** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-575** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-576** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-577** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-578** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-579** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-580** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-581** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-582** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.



Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-583** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-584** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-585** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-586** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-587** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-588** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br):[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-589** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) (Note that [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) may be empty, from the "" case in [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= 0   1   ...   9 [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   .[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   .[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= "+"   "-" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) [/topic/body/section/table/tgroup/</p>

Parameter	Type	Description
		<p>tbody/row/entry/p/br {""}) (br ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br ::= "e" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br   "E" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that will cause implementors to also use a fixed point implementation.</p>

**Table 5-590** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-591** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-592** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-593** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-594** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-595** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project

Parameter	Type	Description
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-596** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-597** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file



**Table 5-598** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-599** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-600** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-601** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-602** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-603** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-604** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-605** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-606** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-607** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-608** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-609** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-610** io.k8s.api.core.v1.PodStatus

Parameter	Type	Description
conditions	Array of <a href="#">io.k8s.api.core.v1.PodCondition</a> objects	Current service state of pod. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
containerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per container in the manifest. Each entry is currently the output of <i>docker inspect</i> . More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
ephemeralContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	Status for any ephemeral containers that have run in this pod. This field is alpha-level and is only populated by servers that enable the EphemeralContainers feature.
hostIP	String	IP address of the host to which the pod is assigned. Empty if not yet scheduled.
initContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per init container in the manifest. The most recent successful init container will have ready = true, the most recently started container will have startTime set. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
message	String	A human readable message indicating details about why the pod is in this condition.

Parameter	Type	Description
nominatedNodeName	String	nominatedNodeName is set only when this pod preempts other pods on the node, but it cannot be scheduled right away as preemption victims receive their graceful termination periods. This field does not guarantee that the pod will be scheduled on this node. Scheduler may decide to place the pod elsewhere if other nodes become available sooner. Scheduler may also decide to give the resources on this node to a higher priority pod that is created after preemption. As a result, this field may be different than PodSpec.nodeName when the pod is scheduled.
phase	String	The phase of a Pod is a simple, high-level summary of where the Pod is in its lifecycle. The conditions array, the reason and message fields, and the individual container status arrays contain more detail about the pod's status. There are five possible phase values:  Pending: The pod has been accepted by the Kubernetes system, but one or more of the container images has not been created. This includes time before being scheduled as well as time spent downloading images over the network, which could take a while. Running: The pod has been bound to a node, and all of the containers have been created. At least one container is still running, or is in the process of starting or restarting. Succeeded: All containers in the pod have terminated in success, and will not be restarted. Failed: All containers in the pod have terminated, and at least one container has terminated in failure. The container either exited with non-zero status or was terminated by the system. Unknown: For some reason the state of the pod could not be obtained, typically due to an error in communicating with the host of the pod.  More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase</a>
podIP	String	IP address allocated to the pod. Routable at least within the cluster. Empty if not yet allocated.
podIPs	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/PodIP">io.k8s.api.core.v1.PodIP</a> objects	podIPs holds the IP addresses allocated to the pod. If this field is specified, the 0th entry must match the podIP field. Pods may be allocated at most 1 value for each of IPv4 and IPv6. This list is empty if no IPs have been allocated yet.



Parameter	Type	Description
qosClass	String	The Quality of Service (QOS) classification assigned to the pod based on resource requirements See PodQOSClass type for available QOS classes More info: <a href="https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md">https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md</a>
reason	String	A brief CamelCase message indicating details about why the pod is in this state. e.g. 'Evicted'
startTime	String	RFC 3339 date and time at which the object was acknowledged by the Kubelet. This is before the Kubelet pulled the container image(s) for the pod.

**Table 5-611** io.k8s.api.core.v1.PodCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransition Time	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.
status	String	Status is the status of the condition. Can be True, False, Unknown. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
type	String	Type is the type of the condition. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>

**Table 5-612** io.k8s.api.core.v1.ContainerStatus

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'.
image	String	The image the container is running. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imageID	String	ImageID of the container's image.
lastState	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's last termination condition.
name	String	This must be a DNS_LABEL. Each container in a pod must have a unique name. Cannot be updated.
ready	Boolean	Specifies whether the container has passed its readiness probe.
restartCount	Integer	The number of times the container has been restarted, currently based on the number of dead containers that have not yet been removed. Note that this is calculated from dead containers. But those containers are subject to garbage collection. This value will get capped at 5 by GC.
started	Boolean	Specifies whether the container has passed its startup probe. Initialized as false, becomes true after startupProbe is considered successful. Resets to false when the container is restarted, or if kubelet loses state temporarily. Is always true when no startupProbe is defined.
state	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's current condition.

**Table 5-613** io.k8s.api.core.v1.ContainerState

Parameter	Type	Description
running	<a href="#">io.k8s.api.core.v1.ContainerStateRunning</a> object	Details about a running container
terminated	<a href="#">io.k8s.api.core.v1.ContainerStateTerminated</a> object	Details about a terminated container
waiting	<a href="#">io.k8s.api.core.v1.ContainerStateWaiting</a> object	Details about a waiting container

**Table 5-614** io.k8s.api.core.v1.ContainerStateRunning

Parameter	Type	Description
startedAt	String	Time at which the container was last (re-)started

**Table 5-615** io.k8s.api.core.v1.ContainerStateTerminated

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'
exitCode	Integer	Exit status from the last termination of the container
finishedAt	String	Time at which the container last terminated
message	String	Message regarding the last termination of the container
reason	String	(brief) reason from the last termination of the container
signal	Integer	Signal from the last termination of the container
startedAt	String	Time at which previous execution of the container started

**Table 5-616** io.k8s.api.core.v1.ContainerStateWaiting

Parameter	Type	Description
message	String	Message regarding why the container is not yet running.
reason	String	(brief) reason the container is not yet running.

**Table 5-617** io.k8s.api.core.v1.PodIP

Parameter	Type	Description
ip	String	ip is an IP address (IPv4 or IPv6) assigned to the pod

## Example Requests

- Creating a general-computing pod using a Redis image, with the number of vCPUs set to 0.5 and the memory set to 1024 Mi

```
{
  "apiVersion": "v1",
  "kind": "Pod",
  "metadata": {
    "labels": {
      "name": "pod-test"
    },
    "name": "pod-test"
  },
  "spec": {
    "containers": [ {
      "image": "redis",
      "imagePullPolicy": "Always",
      "name": "test",
      "resources": {
        "limits": {
          "cpu": "0.5",
          "memory": "1024Mi"
        },
        "requests": {
          "cpu": "0.5",
          "memory": "1024Mi"
        }
      }
    }
  ],
  "imagePullSecrets": [ {
    "name": "imagepull-secret"
  } ],
  "priority": 0,
  "restartPolicy": "Always"
}
```

- Creating a GPU-accelerated pod using a Redis image, with the GPU driver version set to **gpu-418.126**, the number of vCPUs set to 4 and memory set to 32 Gi
  - In CN North-Beijing, only NVIDIA Tesla V100 32 GB GPUs are supported.
  - In CN East-Shanghai1, NVIDIA Tesla V100 32 GB and NVIDIA Tesla V100 16 GB GPUs are supported.

```
{
  "apiVersion": "v1",
  "kind": "Pod",
  "metadata": {
    "annotations": {
      "cri.cci.io/gpu-driver": "gpu-418.126"
    },
    "labels": {
      "name": "pod-test"
    },
    "name": "pod-test"
  },
  "spec": {
    "containers": [ {
      "image": "redis",
      "imagePullPolicy": "Always",
      "name": "test",
      "resources": {
        "limits": {
          "cpu": "4",
          "memory": "32Gi",
          "nvidia.com/gpu-tesla-v100-16GB": "1"
        },
        "requests": {
```

```
    "cpu": "4",
    "memory": "32Gi",
    "nvidia.com/gpu-tesla-v100-16GB": "1"
  }
},
"imagePullSecrets": [ {
  "name": "imagepull-secret"
}],
"priority": 0,
"restartPolicy": "Always"
}
}
```

- Creating a pod with a local volume created using LVM (The mount path of the volume in the container is **/tmp/log**.)

```
{
  "apiVersion": "v1",
  "kind": "Pod",
  "metadata": {
    "labels": {
      "app": "localvolume"
    },
    "name": "localvolume",
    "namespace": "cci-namespace-12192721"
  },
  "spec": {
    "containers": [ {
      "command": [ "/bin/sh", "-c", "sleep 10000" ],
      "image": "100.79.1.215:20202/paas_cci_test/redis:v1",
      "imagePullPolicy": "Always",
      "lifecycle": { },
      "name": "container-0",
      "resources": {
        "limits": {
          "cpu": "500m",
          "memory": "1024Mi"
        },
        "requests": {
          "cpu": "500m",
          "memory": "1024Mi"
        }
      },
      "terminationMessagePath": "/dev/termination-log",
      "terminationMessagePolicy": "File",
      "volumeMounts": [ {
        "mountPath": "/tmp/log",
        "name": "innerevs123"
      } ]
    } ],
    "dnsPolicy": "Default",
    "imagePullSecrets": [ {
      "name": "imagepull-secret"
    } ],
    "nodeSelector": {
      "node.cci.io/allowed-on-poc-dedicated-node": "sina"
    },
    "restartPolicy": "Always",
    "schedulerName": "default-scheduler",
    "tolerations": [ {
      "effect": "NoSchedule",
      "key": "node.cci.io/allowed-on-poc-dedicated-node",
      "operator": "Equal",
      "value": "sina"
    } ],
    "volumes": [ {
      "emptyDir": {
        "sizeLimit": "100Gi"
      },
      "name": "innerevs123"
    } ]
  }
}
```

```
    } ]
  }
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "apiVersion": "v1",
  "kind": "Pod",
  "metadata": {
    "annotations": {
      "cri.cci.io/container-type": "secure-container"
    },
    "creationTimestamp": "2022-08-30T03:14:15Z",
    "finalizers": [ "billing.kubernetes.io/podbilling-finalizer" ],
    "labels": {
      "name": "pod-test",
      "tenant.kubernetes.io/domain-id": "xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx"
    },
    "name": "pod-test",
    "namespace": "test",
    "resourceVersion": "33742743",
    "selfLink": "/api/v1/namespaces/test/pods/pod-test",
    "uid": "c0f9820e-188c-4612-be69-b9c65c8bdb5a"
  },
  "spec": {
    "containers": [ {
      "image": "redis",
      "imagePullPolicy": "Always",
      "name": "test",
      "resources": {
        "limits": {
          "cpu": "500m",
          "memory": "1Gi"
        },
        "requests": {
          "cpu": "500m",
          "memory": "1Gi"
        }
      }
    }
  ],
  "terminationMessagePath": "/dev/termination-log",
  "terminationMessagePolicy": "File"
},
  "dnsPolicy": "Default",
  "enableServiceLinks": false,
  "imagePullSecrets": [ {
    "name": "imagepull-secret"
  } ],
  "nodeSelector": {
    "node.cci.io/default-cpu-choice": "true",
    "node.cci.io/flavor": "general-computing"
  },
  "priority": 0,
  "restartPolicy": "Always",
  "runtimeClassName": "kata",
  "schedulerName": "volcano",
  "securityContext": { },
  "terminationGracePeriodSeconds": 30,
  "tolerations": [ {
    "effect": "NoExecute",
    "key": "node.kubernetes.io/not-ready",
    "operator": "Exists",
    "tolerationSeconds": 300
  } ],
  "effect": "NoExecute",
}
```

```

    "key" : "node.kubernetes.io/unreachable",
    "operator" : "Exists",
    "tolerationSeconds" : 300
  }, {
    "effect" : "NoSchedule",
    "key" : "node.cci.io/occupied",
    "operator" : "Equal",
    "value" : "default"
  }, {
    "effect" : "NoSchedule",
    "key" : "node.cci.io/allowed-on-shared-node",
    "operator" : "Exists"
  }, {
    "effect" : "NoSchedule",
    "key" : "node.kubernetes.io/memory-pressure",
    "operator" : "Exists"
  }
]
},
"status" : {
  "phase" : "Pending",
  "qosClass" : "Guaranteed"
}
}

```

## Status Codes

Status Code	Description
200	OK
201	Created
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	AlreadyExists
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.2.4 Deleting a Pod

### Function

This API is used to delete a pod. Wait for 10s before the deletion.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /api/v1/namespaces/{namespace}/pods/{name}

**Table 5-618** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Pod
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-619** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.



Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

Table 5-620 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-621** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.

Parameter	Mandatory	Type	Description
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-622** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

Status code: 200

**Table 5-623** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.PodStatus</a> object	Most recently observed status of the pod. This data may not be up to date. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-624** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.

Parameter	Type	Description
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>

Parameter	Type	Description
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.

Parameter	Type	Description
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://github.com/kubernetes/api/blob/master/core/v1/pod_readiness_gate.go">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="https://github.com/kubernetes/api/blob/master/core/v1/pod_security_context.go">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.



Parameter	Type	Description
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="https://kubernetes.io/api-references/api/v1/#toleration">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.

Parameter	Type	Description
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-625** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-626** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-627** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-628** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-629** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-630** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-631** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-632** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-633** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-634** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-635** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-636** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-637** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.



Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-638** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-639** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-640** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-641** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-642** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-643** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-644** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-645** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-646** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-647** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>



Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-648** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-649** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-650** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-651** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-652** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-653** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-654** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-655** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-656** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-657** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-658** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-659** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-660** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-661** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-662** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-663** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>
fsGroupChangePolicy	String	<p>fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".</p>
runAsGroup	Long	<p>The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>
runAsNonRoot	Boolean	<p>Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.</p>
runAsUser	Long	<p>The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>



Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-664** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-665** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-666** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-667** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-668** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-669** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-670** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine



**Table 5-671** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-672** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-673** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-674** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-675** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-676** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-677** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-678** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-679** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-680** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-681** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-682** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>



Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-683** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-684** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-685** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-686** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-687** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-688** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-689** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-690** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-691** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-692** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-693** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>



Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-694** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-695** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-696** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-697** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-698** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-699** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-700** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-701** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-702** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-703** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-704** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-705** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-706** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-707** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-708** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-709** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-710** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-711** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.



**Table 5-712** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-713** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-714** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-715** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-716** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-717** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-718** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-719** io.k8s.api.core.v1.PodStatus

Parameter	Type	Description
conditions	Array of <a href="#">io.k8s.api.core.v1.PodCondition</a> objects	Current service state of pod. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
containerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per container in the manifest. Each entry is currently the output of <i>docker inspect</i> . More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
ephemeralContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	Status for any ephemeral containers that have run in this pod. This field is alpha-level and is only populated by servers that enable the EphemeralContainers feature.
hostIP	String	IP address of the host to which the pod is assigned. Empty if not yet scheduled.
initContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per init container in the manifest. The most recent successful init container will have ready = true, the most recently started container will have startTime set. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
message	String	A human readable message indicating details about why the pod is in this condition.

Parameter	Type	Description
nominatedNodeName	String	nominatedNodeName is set only when this pod preempts other pods on the node, but it cannot be scheduled right away as preemption victims receive their graceful termination periods. This field does not guarantee that the pod will be scheduled on this node. Scheduler may decide to place the pod elsewhere if other nodes become available sooner. Scheduler may also decide to give the resources on this node to a higher priority pod that is created after preemption. As a result, this field may be different than PodSpec.nodeName when the pod is scheduled.
phase	String	The phase of a Pod is a simple, high-level summary of where the Pod is in its lifecycle. The conditions array, the reason and message fields, and the individual container status arrays contain more detail about the pod's status. There are five possible phase values:  Pending: The pod has been accepted by the Kubernetes system, but one or more of the container images has not been created. This includes time before being scheduled as well as time spent downloading images over the network, which could take a while. Running: The pod has been bound to a node, and all of the containers have been created. At least one container is still running, or is in the process of starting or restarting. Succeeded: All containers in the pod have terminated in success, and will not be restarted. Failed: All containers in the pod have terminated, and at least one container has terminated in failure. The container either exited with non-zero status or was terminated by the system. Unknown: For some reason the state of the pod could not be obtained, typically due to an error in communicating with the host of the pod.  More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase</a>
podIP	String	IP address allocated to the pod. Routable at least within the cluster. Empty if not yet allocated.
podIPs	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/PodIP">io.k8s.api.core.v1.PodIP</a> objects	podIPs holds the IP addresses allocated to the pod. If this field is specified, the 0th entry must match the podIP field. Pods may be allocated at most 1 value for each of IPv4 and IPv6. This list is empty if no IPs have been allocated yet.

Parameter	Type	Description
qosClass	String	The Quality of Service (QOS) classification assigned to the pod based on resource requirements See PodQOSClass type for available QOS classes More info: <a href="https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md">https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md</a>
reason	String	A brief CamelCase message indicating details about why the pod is in this state. e.g. 'Evicted'
startTime	String	RFC 3339 date and time at which the object was acknowledged by the Kubelet. This is before the Kubelet pulled the container image(s) for the pod.

**Table 5-720** io.k8s.api.core.v1.PodCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransition Time	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.
status	String	Status is the status of the condition. Can be True, False, Unknown. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
type	String	Type is the type of the condition. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>

**Table 5-721** io.k8s.api.core.v1.ContainerStatus

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'.
image	String	The image the container is running. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imageID	String	ImageID of the container's image.
lastState	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's last termination condition.
name	String	This must be a DNS_LABEL. Each container in a pod must have a unique name. Cannot be updated.
ready	Boolean	Specifies whether the container has passed its readiness probe.
restartCount	Integer	The number of times the container has been restarted, currently based on the number of dead containers that have not yet been removed. Note that this is calculated from dead containers. But those containers are subject to garbage collection. This value will get capped at 5 by GC.
started	Boolean	Specifies whether the container has passed its startup probe. Initialized as false, becomes true after startupProbe is considered successful. Resets to false when the container is restarted, or if kubelet loses state temporarily. Is always true when no startupProbe is defined.
state	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's current condition.

**Table 5-722** io.k8s.api.core.v1.ContainerState

Parameter	Type	Description
running	<a href="#">io.k8s.api.core.v1.ContainerStateRunning</a> object	Details about a running container
terminated	<a href="#">io.k8s.api.core.v1.ContainerStateTerminated</a> object	Details about a terminated container
waiting	<a href="#">io.k8s.api.core.v1.ContainerStateWaiting</a> object	Details about a waiting container



**Table 5-723** io.k8s.api.core.v1.ContainerStateRunning

Parameter	Type	Description
startedAt	String	Time at which the container was last (re-)started

**Table 5-724** io.k8s.api.core.v1.ContainerStateTerminated

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'
exitCode	Integer	Exit status from the last termination of the container
finishedAt	String	Time at which the container last terminated
message	String	Message regarding the last termination of the container
reason	String	(brief) reason from the last termination of the container
signal	Integer	Signal from the last termination of the container
startedAt	String	Time at which previous execution of the container started

**Table 5-725** io.k8s.api.core.v1.ContainerStateWaiting

Parameter	Type	Description
message	String	Message regarding why the container is not yet running.
reason	String	(brief) reason the container is not yet running.

**Table 5-726** io.k8s.api.core.v1.PodIP

Parameter	Type	Description
ip	String	ip is an IP address (IPv4 or IPv6) assigned to the pod

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**Table 5-727** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.PodStatus</a> object	Most recently observed status of the pod. This data may not be up to date. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-728** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints

Parameter	Type	Description
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.

Parameter	Type	Description
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/LocalObjectReference">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/Container">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.

Parameter	Type	Description
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.

Parameter	Type	Description
readinessGate s	Array of <a href="#">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClass Name	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerNa me	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityConte xt	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccoun t	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccoun tName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>

Parameter	Type	Description
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.

Parameter	Type	Description
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-729** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-730** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.



Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-731** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-732** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-733** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-734** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-735** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-736** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringSchedulingIgnoredDuringExecution anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-737** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-738** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-739** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-740** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-741** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-742** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-743** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>



**Table 5-744** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-745** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-746** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <i>metadata.name</i> , <i>metadata.namespace</i> , <i>metadata.labels['&lt;KEY&gt;']</i> , <i>metadata.annotations['&lt;KEY&gt;']</i> , <i>spec.nodeName</i> , <i>spec.serviceAccountName</i> , <i>status.hostIP</i> , <i>status.podIP</i> , <i>status.podIPs</i> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-747** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-748** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-749** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-750** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-751** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-752** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-753** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-754** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-755** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.



Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-756** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-757** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCP socket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-758** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-759** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-760** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-761** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-762** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-763** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'. Must not contain '..'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-764** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-765** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-766** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-767** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-768** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-769** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-770** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-771** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.



**Table 5-772** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-773** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-774** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-775** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-776** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-777** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-778** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>



**Table 5-779** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-780** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-781** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-782** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-783** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-784** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-785** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-786** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.



Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-787** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-788** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-789** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-790** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-791** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-792** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-793** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-794** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-795** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-796** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-797** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-798** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-799** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-800** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-801** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).



**Table 5-802** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-803** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-804** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-805** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-806** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-807** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-808** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-809** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-810** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-811** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-812** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-813** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-814** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-815** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-816** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-817** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-818** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.



Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-819** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-820** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-821** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-822** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-823** io.k8s.api.core.v1.PodStatus

Parameter	Type	Description
conditions	Array of <a href="#">io.k8s.api.core.v1.PodCondition</a> objects	Current service state of pod. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
containerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per container in the manifest. Each entry is currently the output of <i>docker inspect</i> . More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
ephemeralContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	Status for any ephemeral containers that have run in this pod. This field is alpha-level and is only populated by servers that enable the EphemeralContainers feature.
hostIP	String	IP address of the host to which the pod is assigned. Empty if not yet scheduled.
initContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per init container in the manifest. The most recent successful init container will have ready = true, the most recently started container will have startTime set. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
message	String	A human readable message indicating details about why the pod is in this condition.

Parameter	Type	Description
nominatedNodeName	String	nominatedNodeName is set only when this pod preempts other pods on the node, but it cannot be scheduled right away as preemption victims receive their graceful termination periods. This field does not guarantee that the pod will be scheduled on this node. Scheduler may decide to place the pod elsewhere if other nodes become available sooner. Scheduler may also decide to give the resources on this node to a higher priority pod that is created after preemption. As a result, this field may be different than PodSpec.nodeName when the pod is scheduled.
phase	String	The phase of a Pod is a simple, high-level summary of where the Pod is in its lifecycle. The conditions array, the reason and message fields, and the individual container status arrays contain more detail about the pod's status. There are five possible phase values:  Pending: The pod has been accepted by the Kubernetes system, but one or more of the container images has not been created. This includes time before being scheduled as well as time spent downloading images over the network, which could take a while. Running: The pod has been bound to a node, and all of the containers have been created. At least one container is still running, or is in the process of starting or restarting. Succeeded: All containers in the pod have terminated in success, and will not be restarted. Failed: All containers in the pod have terminated, and at least one container has terminated in failure. The container either exited with non-zero status or was terminated by the system. Unknown: For some reason the state of the pod could not be obtained, typically due to an error in communicating with the host of the pod.  More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase</a>
podIP	String	IP address allocated to the pod. Routable at least within the cluster. Empty if not yet allocated.
podIPs	Array of <a href="https://kubernetes.io/docs/api/1.27/#io.k8s.api.core.v1.PodIP">io.k8s.api.core.v1.PodIP</a> objects	podIPs holds the IP addresses allocated to the pod. If this field is specified, the 0th entry must match the podIP field. Pods may be allocated at most 1 value for each of IPv4 and IPv6. This list is empty if no IPs have been allocated yet.

Parameter	Type	Description
qosClass	String	The Quality of Service (QOS) classification assigned to the pod based on resource requirements See PodQOSClass type for available QOS classes More info: <a href="https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md">https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md</a>
reason	String	A brief CamelCase message indicating details about why the pod is in this state. e.g. 'Evicted'
startTime	String	RFC 3339 date and time at which the object was acknowledged by the Kubelet. This is before the Kubelet pulled the container image(s) for the pod.

**Table 5-824** io.k8s.api.core.v1.PodCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.
status	String	Status is the status of the condition. Can be True, False, Unknown. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
type	String	Type is the type of the condition. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>

**Table 5-825** io.k8s.api.core.v1.ContainerStatus

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'.
image	String	The image the container is running. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imageID	String	ImageID of the container's image.
lastState	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's last termination condition.
name	String	This must be a DNS_LABEL. Each container in a pod must have a unique name. Cannot be updated.
ready	Boolean	Specifies whether the container has passed its readiness probe.
restartCount	Integer	The number of times the container has been restarted, currently based on the number of dead containers that have not yet been removed. Note that this is calculated from dead containers. But those containers are subject to garbage collection. This value will get capped at 5 by GC.
started	Boolean	Specifies whether the container has passed its startup probe. Initialized as false, becomes true after startupProbe is considered successful. Resets to false when the container is restarted, or if kubelet loses state temporarily. Is always true when no startupProbe is defined.
state	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's current condition.

**Table 5-826** io.k8s.api.core.v1.ContainerState

Parameter	Type	Description
running	<a href="#">io.k8s.api.core.v1.ContainerStateRunning</a> object	Details about a running container
terminated	<a href="#">io.k8s.api.core.v1.ContainerStateTerminated</a> object	Details about a terminated container
waiting	<a href="#">io.k8s.api.core.v1.ContainerStateWaiting</a> object	Details about a waiting container

**Table 5-827** io.k8s.api.core.v1.ContainerStateRunning

Parameter	Type	Description
startedAt	String	Time at which the container was last (re-)started

**Table 5-828** io.k8s.api.core.v1.ContainerStateTerminated

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'
exitCode	Integer	Exit status from the last termination of the container
finishedAt	String	Time at which the container last terminated
message	String	Message regarding the last termination of the container
reason	String	(brief) reason from the last termination of the container
signal	Integer	Signal from the last termination of the container
startedAt	String	Time at which previous execution of the container started

**Table 5-829** io.k8s.api.core.v1.ContainerStateWaiting

Parameter	Type	Description
message	String	Message regarding why the container is not yet running.
reason	String	(brief) reason the container is not yet running.

**Table 5-830** io.k8s.api.core.v1.PodIP

Parameter	Type	Description
ip	String	ip is an IP address (IPv4 or IPv6) assigned to the pod

## Example Requests

```
{
  "apiVersion": "v1",
```

```
"gracePeriodSeconds" : 10,  
"kind" : "DeleteOptions"  
}
```

## Example Responses

**Status code: 200**

OK

```
{  
  "apiVersion" : "v1",  
  "items" : [ {  
    "metadata" : {  
      "annotations" : {  
        "cri.cci.io/container-type" : "secure-container",  
        "kubernetes.io/availablezone" : "dc1",  
        "network.alpha.kubernetes.io/network" : "[{"name":"namespace-test-dc1-default-network",  
"\",\"interface\":\"eth0\", \"network_plane\":\"default\"}]"  
      },  
      "creationTimestamp" : "2018-09-03T12:26:12Z",  
      "labels" : {  
        "name" : "pod-test"  
      },  
      "name" : "pod-test",  
      "namespace" : "namespace-test",  
      "resourceVersion" : "5030610",  
      "selfLink" : "/api/v1/namespaces/namespace-test/pods/pod-test",  
      "uid" : "8b985a27-af74-11e8-9d5d-c88d83be759f"  
    },  
    "spec" : {  
      "containers" : [ {  
        "image" : "redis",  
        "imagePullPolicy" : "Always",  
        "name" : "test",  
        "resources" : {  
          "limits" : {  
            "cpu" : "500m",  
            "memory" : "1Gi"  
          },  
          "requests" : {  
            "cpu" : "500m",  
            "memory" : "1Gi"  
          }  
        },  
        "terminationMessagePath" : "/dev/termination-log",  
        "terminationMessagePolicy" : "File"  
      },  
      "dnsPolicy" : "ClusterFirst",  
      "imagePullSecrets" : [ {  
        "name" : "imagepull-secret"  
      } ],  
      "nodeName" : "c0dd6256-195a-e811-90a2-10c17294fcbc",  
      "restartPolicy" : "Always",  
      "schedulerName" : "default-scheduler",  
      "securityContext" : { },  
      "tolerations" : [ {  
        "effect" : "NoExecute",  
        "key" : "node.kubernetes.io/not-ready",  
        "operator" : "Exists",  
        "tolerationSeconds" : 300  
      }, {  
        "effect" : "NoExecute",  
        "key" : "node.kubernetes.io/unreachable",  
        "operator" : "Exists",  
        "tolerationSeconds" : 300  
      } ]  
    },  
    "status" : {
```



```

"conditions": [ {
  "lastProbeTime": null,
  "lastTransitionTime": "2018-09-03T12:26:12Z",
  "status": "True",
  "type": "Initialized"
}, {
  "lastProbeTime": null,
  "lastTransitionTime": "2018-09-03T12:26:16Z",
  "status": "True",
  "type": "Ready"
}, {
  "lastProbeTime": null,
  "lastTransitionTime": "2018-09-03T12:26:12Z",
  "status": "True",
  "type": "PodScheduled"
} ],
"containerStatuses": [ {
  "containerID": "docker://aee55d8dedb8371f96aa5d5116f69a53bf1cb23afe1802567c24081514d3b048",
  "image": "redis",
  "imageID": "docker-pullable://
redis@sha256:3ab7046bd035a47aa06963d8240651d00b57e82dab07ba374ad01f84dfa1230c",
  "lastState": { },
  "name": "test",
  "ready": true,
  "restartCount": 0,
  "state": {
    "running": {
      "startedAt": "2018-09-03T12:26:16Z"
    }
  }
} ],
"managementIP": "172.28.0.17",
"phase": "Running",
"podIP": "192.168.245.185",
"qosClass": "Guaranteed",
"startTime": "2018-09-03T12:26:12Z"
} ],
"kind": "PodList",
"metadata": {
  "resourceVersion": "5035636",
  "selfLink": "/api/v1/namespaces/namespace-test/pods"
}
}

```

## Status Codes

Status Code	Description
200	OK
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable

Status Code	Description
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.2.5 Querying a Pod

### Function

This API is used to query the details about a specified pod.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /api/v1/namespaces/{namespace}/pods/{name}

**Table 5-831** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Pod
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-832** Query Parameters

Parameter	Mandatory	Type	Description
exact	No	Boolean	Should the export be exact. Exact export maintains cluster-specific fields like 'Namespace'. Deprecated. Planned for removal in 1.18.

Parameter	Mandatory	Type	Description
export	No	Boolean	Should this value be exported. Export strips fields that a user can not specify. Deprecated. Planned for removal in 1.18.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-833** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-834** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.PodStatus</a> object	Most recently observed status of the pod. This data may not be up to date. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-835** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.

Parameter	Type	Description
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAlias</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.

Parameter	Type	Description
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/objects/PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.



Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-836** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-837** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-838** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.

Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-839** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-840** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-841** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-842** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-843** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-844** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-845** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-846** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-847** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-848** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.



Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-849** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-850** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-851** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-852** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-853** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-854** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-855** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-856** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-857** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-858** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>



Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-859** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-860** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-861** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-862** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-863** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-864** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-865** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-866** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-867** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-868** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-869** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-870** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-871** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-872** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-873** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-874** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.



Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-875** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-876** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-877** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-878** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-879** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-880** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-881** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine



**Table 5-882** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-883** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-884** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-885** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-886** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-887** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-888** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-889** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-890** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-891** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-892** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-893** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>



Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-894** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-895** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-896** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-897** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-898** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-899** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-900** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-901** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-902** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-903** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-904** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>



Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-905** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-906** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-907** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-908** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-909** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-910** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-911** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-912** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-913** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-914** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-915** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-916** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-917** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-918** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-919** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-920** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-921** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-922** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.



**Table 5-923** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-924** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-925** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-926** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-927** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-928** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-929** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-930** io.k8s.api.core.v1.PodStatus

Parameter	Type	Description
conditions	Array of <a href="#">io.k8s.api.core.v1.PodCondition</a> objects	Current service state of pod. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
containerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per container in the manifest. Each entry is currently the output of <i>docker inspect</i> . More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
ephemeralContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	Status for any ephemeral containers that have run in this pod. This field is alpha-level and is only populated by servers that enable the EphemeralContainers feature.
hostIP	String	IP address of the host to which the pod is assigned. Empty if not yet scheduled.
initContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per init container in the manifest. The most recent successful init container will have ready = true, the most recently started container will have startTime set. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
message	String	A human readable message indicating details about why the pod is in this condition.

Parameter	Type	Description
nominatedNodeName	String	nominatedNodeName is set only when this pod preempts other pods on the node, but it cannot be scheduled right away as preemption victims receive their graceful termination periods. This field does not guarantee that the pod will be scheduled on this node. Scheduler may decide to place the pod elsewhere if other nodes become available sooner. Scheduler may also decide to give the resources on this node to a higher priority pod that is created after preemption. As a result, this field may be different than PodSpec.nodeName when the pod is scheduled.
phase	String	The phase of a Pod is a simple, high-level summary of where the Pod is in its lifecycle. The conditions array, the reason and message fields, and the individual container status arrays contain more detail about the pod's status. There are five possible phase values:  Pending: The pod has been accepted by the Kubernetes system, but one or more of the container images has not been created. This includes time before being scheduled as well as time spent downloading images over the network, which could take a while. Running: The pod has been bound to a node, and all of the containers have been created. At least one container is still running, or is in the process of starting or restarting. Succeeded: All containers in the pod have terminated in success, and will not be restarted. Failed: All containers in the pod have terminated, and at least one container has terminated in failure. The container either exited with non-zero status or was terminated by the system. Unknown: For some reason the state of the pod could not be obtained, typically due to an error in communicating with the host of the pod.  More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase</a>
podIP	String	IP address allocated to the pod. Routable at least within the cluster. Empty if not yet allocated.
podIPs	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/PodIP">io.k8s.api.core.v1.PodIP</a> objects	podIPs holds the IP addresses allocated to the pod. If this field is specified, the 0th entry must match the podIP field. Pods may be allocated at most 1 value for each of IPv4 and IPv6. This list is empty if no IPs have been allocated yet.

Parameter	Type	Description
qosClass	String	The Quality of Service (QOS) classification assigned to the pod based on resource requirements See PodQOSClass type for available QOS classes More info: <a href="https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md">https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md</a>
reason	String	A brief CamelCase message indicating details about why the pod is in this state. e.g. 'Evicted'
startTime	String	RFC 3339 date and time at which the object was acknowledged by the Kubelet. This is before the Kubelet pulled the container image(s) for the pod.

**Table 5-931** io.k8s.api.core.v1.PodCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransition Time	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.
status	String	Status is the status of the condition. Can be True, False, Unknown. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
type	String	Type is the type of the condition. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>

**Table 5-932** io.k8s.api.core.v1.ContainerStatus

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'.
image	String	The image the container is running. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imageID	String	ImageID of the container's image.
lastState	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's last termination condition.
name	String	This must be a DNS_LABEL. Each container in a pod must have a unique name. Cannot be updated.
ready	Boolean	Specifies whether the container has passed its readiness probe.
restartCount	Integer	The number of times the container has been restarted, currently based on the number of dead containers that have not yet been removed. Note that this is calculated from dead containers. But those containers are subject to garbage collection. This value will get capped at 5 by GC.
started	Boolean	Specifies whether the container has passed its startup probe. Initialized as false, becomes true after startupProbe is considered successful. Resets to false when the container is restarted, or if kubelet loses state temporarily. Is always true when no startupProbe is defined.
state	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's current condition.

**Table 5-933** io.k8s.api.core.v1.ContainerState

Parameter	Type	Description
running	<a href="#">io.k8s.api.core.v1.ContainerStateRunning</a> object	Details about a running container
terminated	<a href="#">io.k8s.api.core.v1.ContainerStateTerminated</a> object	Details about a terminated container
waiting	<a href="#">io.k8s.api.core.v1.ContainerStateWaiting</a> object	Details about a waiting container



**Table 5-934** io.k8s.api.core.v1.ContainerStateRunning

Parameter	Type	Description
startedAt	String	Time at which the container was last (re-)started

**Table 5-935** io.k8s.api.core.v1.ContainerStateTerminated

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'
exitCode	Integer	Exit status from the last termination of the container
finishedAt	String	Time at which the container last terminated
message	String	Message regarding the last termination of the container
reason	String	(brief) reason from the last termination of the container
signal	Integer	Signal from the last termination of the container
startedAt	String	Time at which previous execution of the container started

**Table 5-936** io.k8s.api.core.v1.ContainerStateWaiting

Parameter	Type	Description
message	String	Message regarding why the container is not yet running.
reason	String	(brief) reason the container is not yet running.

**Table 5-937** io.k8s.api.core.v1.PodIP

Parameter	Type	Description
ip	String	ip is an IP address (IPv4 or IPv6) assigned to the pod

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "v1",
  "kind": "Pod",
  "metadata": {
    "annotations": {
      "cri.cci.io/container-type": "secure-container",
      "kubernetes.io/availablezone": "dc1",
      "network.alpha.kubernetes.io/network": "[{"name":"namespace-test-dc1-default-network",
      "interface":"eth0","network_plane":"default"}]"
    },
    "creationTimestamp": "2018-09-03T12:26:12Z",
    "labels": {
      "name": "pod-test"
    },
    "name": "pod-test",
    "namespace": "namespace-test",
    "resourceVersion": "5030610",
    "selfLink": "/api/v1/namespaces/namespace-test/pods/pod-test",
    "uid": "8b985a27-af74-11e8-9d5d-c88d83be759f"
  },
  "spec": {
    "containers": [ {
      "image": "redis",
      "imagePullPolicy": "Always",
      "name": "test",
      "resources": {
        "limits": {
          "cpu": "500m",
          "memory": "1Gi"
        },
        "requests": {
          "cpu": "500m",
          "memory": "1Gi"
        }
      }
    },
    "terminationMessagePath": "/dev/termination-log",
    "terminationMessagePolicy": "File"
  },
  "dnsPolicy": "ClusterFirst",
  "imagePullSecrets": [ {
    "name": "imagepull-secret"
  } ],
  "nodeName": "c0dd6256-195a-e811-90a2-10c17294fbc",
  "restartPolicy": "Always",
  "schedulerName": "default-scheduler",
  "securityContext": { },
  "tolerations": [ {
    "effect": "NoExecute",
    "key": "node.kubernetes.io/not-ready",
    "operator": "Exists",
    "tolerationSeconds": 300
  }, {
    "effect": "NoExecute",
    "key": "node.kubernetes.io/unreachable",
    "operator": "Exists",
    "tolerationSeconds": 300
  } ]
},
"status": {
  "conditions": [ {
    "lastProbeTime": null,
    "lastTransitionTime": "2018-09-03T12:26:12Z",
    "status": "True",
```

```
    "type" : "Initialized"
  }, {
    "lastProbeTime" : null,
    "lastTransitionTime" : "2018-09-03T12:26:16Z",
    "status" : "True",
    "type" : "Ready"
  }, {
    "lastProbeTime" : null,
    "lastTransitionTime" : "2018-09-03T12:26:12Z",
    "status" : "True",
    "type" : "PodScheduled"
  } ],
  "containerStatuses" : [ {
    "containerID" : "docker://aee55d8dedb8371f96aa5d5116f69a53bf1cb23afe1802567c24081514d3b048",
    "image" : "redis",
    "imageID" : "docker-pullable://
redis@sha256:3ab7046bd035a47aa06963d8240651d00b57e82dab07ba374ad01f84dfa1230c",
    "lastState" : { },
    "name" : "test",
    "ready" : true,
    "restartCount" : 0,
    "state" : {
      "running" : {
        "startedAt" : "2018-09-03T12:26:16Z"
      }
    }
  } ],
  "phase" : "Running",
  "podIP" : "192.168.245.185",
  "qosClass" : "Guaranteed",
  "startTime" : "2018-09-03T12:26:12Z"
}
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable

Status Code	Description
504	ServerTimeout

## 5.2.6 Updating a Pod

### Function

This API is used to update a specified pod.

The following fields can be updated:

- **metadata.generateName**
- **metadata.labels**
- **metadata.annotations**
- **spec.initContainers[\*].image**
- **spec.containers[\*].image**
- **spec.activeDeadlineSeconds**
- **spec.tolerations** Other fields cannot be updated.

### Calling Method

For details, see [Calling APIs](#).

### URI

PATCH /api/v1/namespaces/{namespace}/pods/{name}

**Table 5-938** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Pod
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-939** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> . This field is required for apply requests (application/apply-patch) but optional for non-apply patch types (JsonPatch, MergePatch, StrategicMergePatch).
force	No	Boolean	Force is going to "force" Apply requests. It means user will re-acquire conflicting fields owned by other people. Force flag must be unset for non-apply patch requests.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-940** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	<p>Currently, three types of patch request methods are supported. For details, see "Update API Objects in Place Using kubectl patch" (<a href="https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/">https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/</a>).</p> <ul style="list-style-type: none"> <li>• <b>Json Patch, Content-Type: application/json-patch+json</b> As defined in RFC6902, Json Patch contains a series of operations on a JSON object. After receiving the object, the server applies the represented operations to the JSON object.</li> <li>• <b>Merge Patch, Content-Type: application/merge-patch+json</b> According to RFC 7386, Merge Patch contains some description of a JSON object. The JSON object is submitted to the server end and merges with the current object of the server end, which means to replace the list field of the current resource object to form a new object.</li> <li>• <b>Strategic Merge Patch, Content-Type: application/strategic-merge-patch+json</b> Strategic Merge Patch is used to add legal metadata to API objects and uses new metadata to determine which lists should be merged and which ones should not. The current metadata is used as the structure labels.</li> </ul>

**Table 5-941** Request body parameters

Parameter	Mandatory	Type	Description
-	Yes	Object	Patch is provided to give a concrete name and type to the Kubernetes PATCH request body.

## Response Parameters

Status code: 200

**Table 5-942** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.PodStatus</a> object	Most recently observed status of the pod. This data may not be up to date. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-943** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.



Parameter	Type	Description
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>

Parameter	Type	Description
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.

Parameter	Type	Description
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://github.com/kubernetes/api/blob/master/core/v1/pod_readiness_gates.go">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="https://github.com/kubernetes/api/blob/master/core/v1/pod_security_context.go">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.

Parameter	Type	Description
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="https://kubernetes.io/api-references/api/v1/#toleration">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.

Parameter	Type	Description
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-944** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-945** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-946** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-947** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-948** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-949** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-950** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-951** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.



**Table 5-952** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-953** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-954** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-955** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-956** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-957** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-958** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-959** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.



Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-960** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-961** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-962** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-963** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-964** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-965** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-966** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-967** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-968** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-969** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-970** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-971** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-972** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCP socket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-973** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-974** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.



**Table 5-975** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-976** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-977** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-978** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'. Must not contain '..'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-979** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-980** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-981** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-982** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-983** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-984** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-985** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-986** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-987** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-988** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-989** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>



Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-990** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-991** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-992** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-993** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-994** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-995** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-996** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-997** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-998** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-999** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).



Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-1000** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-1001** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1002** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1003** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1004** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-1005** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.



Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-1006** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-1007** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-1008** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-1009** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-1010** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-1011** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-1012** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-1013** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-1014** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-1015** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-1016** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-1017** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-1018** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-1019** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-1020** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-1021** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-1022** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-1023** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project



Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-1024** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-1025** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-1026** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-1027** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-1028** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-1029** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-1030** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-1031** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-1032** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-1033** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-1034** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-1035** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-1036** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-1037** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-1038** io.k8s.api.core.v1.PodStatus

Parameter	Type	Description
conditions	Array of <a href="#">io.k8s.api.core.v1.PodCondition</a> objects	Current service state of pod. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
containerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per container in the manifest. Each entry is currently the output of <i>docker inspect</i> . More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
ephemeralContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	Status for any ephemeral containers that have run in this pod. This field is alpha-level and is only populated by servers that enable the EphemeralContainers feature.
hostIP	String	IP address of the host to which the pod is assigned. Empty if not yet scheduled.
initContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per init container in the manifest. The most recent successful init container will have ready = true, the most recently started container will have startTime set. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
message	String	A human readable message indicating details about why the pod is in this condition.



Parameter	Type	Description
nominatedNodeName	String	nominatedNodeName is set only when this pod preempts other pods on the node, but it cannot be scheduled right away as preemption victims receive their graceful termination periods. This field does not guarantee that the pod will be scheduled on this node. Scheduler may decide to place the pod elsewhere if other nodes become available sooner. Scheduler may also decide to give the resources on this node to a higher priority pod that is created after preemption. As a result, this field may be different than PodSpec.nodeName when the pod is scheduled.
phase	String	The phase of a Pod is a simple, high-level summary of where the Pod is in its lifecycle. The conditions array, the reason and message fields, and the individual container status arrays contain more detail about the pod's status. There are five possible phase values:  Pending: The pod has been accepted by the Kubernetes system, but one or more of the container images has not been created. This includes time before being scheduled as well as time spent downloading images over the network, which could take a while. Running: The pod has been bound to a node, and all of the containers have been created. At least one container is still running, or is in the process of starting or restarting. Succeeded: All containers in the pod have terminated in success, and will not be restarted. Failed: All containers in the pod have terminated, and at least one container has terminated in failure. The container either exited with non-zero status or was terminated by the system. Unknown: For some reason the state of the pod could not be obtained, typically due to an error in communicating with the host of the pod.  More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase</a>
podIP	String	IP address allocated to the pod. Routable at least within the cluster. Empty if not yet allocated.
podIPs	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/PodIP">io.k8s.api.core.v1.PodIP</a> objects	podIPs holds the IP addresses allocated to the pod. If this field is specified, the 0th entry must match the podIP field. Pods may be allocated at most 1 value for each of IPv4 and IPv6. This list is empty if no IPs have been allocated yet.

Parameter	Type	Description
qosClass	String	The Quality of Service (QOS) classification assigned to the pod based on resource requirements See PodQOSClass type for available QOS classes More info: <a href="https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md">https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md</a>
reason	String	A brief CamelCase message indicating details about why the pod is in this state. e.g. 'Evicted'
startTime	String	RFC 3339 date and time at which the object was acknowledged by the Kubelet. This is before the Kubelet pulled the container image(s) for the pod.

**Table 5-1039** io.k8s.api.core.v1.PodCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransition Time	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.
status	String	Status is the status of the condition. Can be True, False, Unknown. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
type	String	Type is the type of the condition. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>

**Table 5-1040** io.k8s.api.core.v1.ContainerStatus

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'.
image	String	The image the container is running. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imageID	String	ImageID of the container's image.
lastState	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's last termination condition.
name	String	This must be a DNS_LABEL. Each container in a pod must have a unique name. Cannot be updated.
ready	Boolean	Specifies whether the container has passed its readiness probe.
restartCount	Integer	The number of times the container has been restarted, currently based on the number of dead containers that have not yet been removed. Note that this is calculated from dead containers. But those containers are subject to garbage collection. This value will get capped at 5 by GC.
started	Boolean	Specifies whether the container has passed its startup probe. Initialized as false, becomes true after startupProbe is considered successful. Resets to false when the container is restarted, or if kubelet loses state temporarily. Is always true when no startupProbe is defined.
state	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's current condition.

**Table 5-1041** io.k8s.api.core.v1.ContainerState

Parameter	Type	Description
running	<a href="#">io.k8s.api.core.v1.ContainerStateRunning</a> object	Details about a running container
terminated	<a href="#">io.k8s.api.core.v1.ContainerStateTerminated</a> object	Details about a terminated container
waiting	<a href="#">io.k8s.api.core.v1.ContainerStateWaiting</a> object	Details about a waiting container

**Table 5-1042** io.k8s.api.core.v1.ContainerStateRunning

Parameter	Type	Description
startedAt	String	Time at which the container was last (re-)started

**Table 5-1043** io.k8s.api.core.v1.ContainerStateTerminated

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'
exitCode	Integer	Exit status from the last termination of the container
finishedAt	String	Time at which the container last terminated
message	String	Message regarding the last termination of the container
reason	String	(brief) reason from the last termination of the container
signal	Integer	Signal from the last termination of the container
startedAt	String	Time at which previous execution of the container started

**Table 5-1044** io.k8s.api.core.v1.ContainerStateWaiting

Parameter	Type	Description
message	String	Message regarding why the container is not yet running.
reason	String	(brief) reason the container is not yet running.

**Table 5-1045** io.k8s.api.core.v1.PodIP

Parameter	Type	Description
ip	String	ip is an IP address (IPv4 or IPv6) assigned to the pod

## Example Requests

Changing the **labels** value of an existing pod to **pod-test2**

```
{
  "metadata": {
    "labels": {
      "name": "pod-test2"
    }
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "Pod",
  "metadata": {
    "annotations": {
      "kubernetes.io/availablezone": "dc1",
      "network.alpha.kubernetes.io/network": "[{\"name\":\"namespace-test-dc1-default-network\", \"interface\":\"eth0\", \"network_plane\":\"default\"}]",
    },
    "creationTimestamp": "2018-09-04T11:04:02Z",
    "labels": {
      "name": "pod-test2"
    }
  },
  "name": "pod-test",
  "namespace": "namespace-test",
  "resourceVersion": "5254098",
  "selfLink": "/api/v1/namespaces/namespace-test/pods/pod-test",
  "uid": "3b99abe8-b032-11e8-9d5d-c88d83be759f"
},
"spec": {
  "containers": [ {
    "image": "redis:latest",
    "imagePullPolicy": "Always",
    "name": "test",
    "resources": {
      "limits": {
        "cpu": "500m",
        "memory": "1Gi"
      },
      "requests": {
        "cpu": "500m",
        "memory": "1Gi"
      }
    }
  },
  "terminationMessagePath": "/dev/termination-log",
  "terminationMessagePolicy": "File"
} ],
"dnsPolicy": "ClusterFirst",
"imagePullSecrets": [ {
  "name": "imagepull-secret"
} ],
"nodeName": "c0dd6256-195a-e811-90a2-10c17294fcbc",
"restartPolicy": "Always",
"schedulerName": "default-scheduler",
"securityContext": { },
"tolerations": [ {
  "effect": "NoExecute",
  "key": "node.kubernetes.io/not-ready",
  "operator": "Exists",
  "tolerationSeconds": 300
}, {
  "effect": "NoExecute",
  "key": "node.kubernetes.io/unreachable",
  "operator": "Exists",
  "tolerationSeconds": 300
}
```

```

    }
  },
  "status": {
    "conditions": [ {
      "lastProbeTime": null,
      "lastTransitionTime": "2018-09-04T11:04:03Z",
      "status": "True",
      "type": "Initialized"
    }, {
      "lastProbeTime": null,
      "lastTransitionTime": "2018-09-04T11:08:55Z",
      "message": "containers with unready status: [test]",
      "reason": "ContainersNotReady",
      "status": "False",
      "type": "Ready"
    }, {
      "lastProbeTime": null,
      "lastTransitionTime": "2018-09-04T11:04:02Z",
      "status": "True",
      "type": "PodScheduled"
    }
  ],
  "containerStatuses": [ {
    "image": "redis:latest",
    "imageID": "",
    "lastState": {
      "terminated": {
        "containerID": "docker://f867ab7d5c68a86fc695e4d3e5f1912fdb8f98f5029ca96032b4d5d407d9a75c",
        "exitCode": 0,
        "finishedAt": "2018-09-04T11:08:33Z",
        "reason": "Completed",
        "startedAt": "2018-09-04T11:04:23Z"
      }
    },
    "name": "test",
    "ready": false,
    "restartCount": 0,
    "state": {
      "waiting": {
        "message": "rpc error: code = Unknown desc = Error response from daemon: Get https://registry-1.docker.io/v2/: net/http: request canceled while waiting for connection (Client.Timeout exceeded while awaiting headers)",
        "reason": "ErrImagePull"
      }
    }
  }
  ],
  "hostIP": "xxx.xxx.xxx.xxx",
  "phase": "Running",
  "qosClass": "Guaranteed",
  "startTime": "2018-09-04T11:04:03Z"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound

Status Code	Description
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.2.7 Replacing a Pod

### Function

This API is used to replace a specified pod.

The following fields can be updated:

- **metadata.labels**
- **metadata.annotations**
- **spec.initContainers[\*].image**
- **spec.containers[\*].image**
- **spec.activeDeadlineSeconds**
- **spec.tolerations.tolerationSeconds** Other fields cannot be updated.

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /api/v1/namespaces/{namespace}/pods/{name}

**Table 5-1046** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Pod
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-1047** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-1048** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>



**Table 5-1049** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	No	<a href="#">io.k8s.api.core.v1.PodStatus</a> object	Most recently observed status of the pod. This data may not be up to date. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1050** io.k8s.api.core.v1.PodSpec

Parameter	Mandatory	Type	Description
activeDeadlineSeconds	No	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	No	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	No	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Yes	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	No	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	No	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	No	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.

Parameter	Mandatory	Type	Description
ephemeralContainers	No	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	No	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	No	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	No	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	No	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	No	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.

Parameter	Mandatory	Type	Description
imagePullSecrets	No	Array of <a href="https://kubernetes.io/docs/reference/generated/kubernetes-api/v1.18/#localobjectreference-v1-io.k8s.api.core.v1">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	No	Array of <a href="https://kubernetes.io/docs/reference/generated/kubernetes-api/v1.18/#container-v1-io.k8s.api.core.v1">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>

Parameter	Mandatory	Type	Description
nodeName	No	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	No	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	No	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.

Parameter	Mandatory	Type	Description
preemptionPolicy	No	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	No	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	No	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	No	Array of <a href="https://kubernetes.io/api-reference/v1.27/objects/PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Mandatory	Type	Description
restartPolicy	No	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	No	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	No	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	No	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceName	No	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceName instead.

Parameter	Mandatory	Type	Description
serviceAccountName	No	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	No	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	No	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	No	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.



Parameter	Mandatory	Type	Description
terminationGracePeriodSeconds	No	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	No	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	No	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	No	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-1051** io.k8s.api.core.v1.Affinity

Parameter	Mandatory	Type	Description
nodeAffinity	No	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Mandatory	Type	Description
podAffinity	No	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	No	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-1052** io.k8s.api.core.v1.NodeAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Mandatory	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	No	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-1053** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Mandatory	Type	Description
preference	Yes	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Yes	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-1054** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	No	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-1055** io.k8s.api.core.v1.NodeSelector

Parameter	Mandatory	Type	Description
nodeSelectorTerms	Yes	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-1056** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	The label key that the selector applies to.
operator	Yes	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist, Gt, and Lt.
values	No	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-1057** io.k8s.api.core.v1.PodAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-1058** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-1059** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Mandatory	Type	Description
podAffinityTerm	Yes	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Yes	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-1060** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Mandatory	Type	Description
labelSelector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	No	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	Yes	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-1061** io.k8s.api.core.v1.PodDNSConfig

Parameter	Mandatory	Type	Description
nameservers	No	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	No	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	No	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-1062** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Mandatory	Type	Description
name	No	String	Required.
value	No	String	value is the value of the option



**Table 5-1063** io.k8s.api.core.v1.EphemeralContainer

Parameter	Mandatory	Type	Description
args	No	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	No	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	No	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.

Parameter	Mandatory	Type	Description
envFrom	No	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	No	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	No	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	No	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	Yes	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	No	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.

Parameter	Mandatory	Type	Description
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	No	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	No	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	No	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false

Parameter	Mandatory	Type	Description
targetContainerName	No	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	No	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	No	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	No	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Mandatory	Type	Description
volumeDevices	No	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	No	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	No	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-1064** io.k8s.api.core.v1.HostAlias

Parameter	Mandatory	Type	Description
hostnames	No	Array of strings	Hostnames for the above IP address.
ip	No	String	IP address of the host file entry.

**Table 5-1065** io.k8s.api.core.v1.LocalObjectReference

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-1066** io.k8s.api.core.v1.Container

Parameter	Mandatory	Type	Description
args	No	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	No	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	No	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.

Parameter	Mandatory	Type	Description
envFrom	No	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	No	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	No	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	No	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	No	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
securityContext	No	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>



Parameter	Mandatory	Type	Description
startupProbe	No	<a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	No	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	No	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false

Parameter	Mandatory	Type	Description
terminationMessagePath	No	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	No	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	No	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	No	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	No	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.

Parameter	Mandatory	Type	Description
workingDir	No	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-1067** io.k8s.api.core.v1.EnvVar

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	No	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".
valueFrom	No	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-1068** io.k8s.api.core.v1.EnvVarSource

Parameter	Mandatory	Type	Description
configMapKeyRef	No	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.

Parameter	Mandatory	Type	Description
fieldRef	No	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports metadata.name, metadata.namespace, <i>metadata.labels['&lt;KEY&gt;']</i> , <i>metadata.annotations['&lt;KEY&gt;']</i> , spec.nodeName, spec.serviceAccountName, status.hostIP, status.podIP, status.podIPs.
resourceFieldRef	No	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	No	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-1069** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Mandatory	Type	Description
key	Yes	String	The key to select.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-1070** io.k8s.api.core.v1.SecretKeySelector

Parameter	Mandatory	Type	Description
key	Yes	String	The key of the secret to select from. Must be a valid secret key.

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret or its key must be defined

**Table 5-1071** io.k8s.api.core.v1.EnvFromSource

Parameter	Mandatory	Type	Description
configMapRef	No	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	No	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	No	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-1072** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap must be defined

**Table 5-1073** io.k8s.api.core.v1.SecretEnvSource

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret must be defined

**Table 5-1074** io.k8s.api.core.v1.Lifecycle

Parameter	Mandatory	Type	Description
postStart	No	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

Parameter	Mandatory	Type	Description
preStop	No	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-1075** io.k8s.api.core.v1.Handler

Parameter	Mandatory	Type	Description
exec	No	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	No	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
tcpSocket	No	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-1076** io.k8s.api.core.v1.ContainerPort

Parameter	Mandatory	Type	Description
containerPort	Yes	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, $0 < x < 65536$ .
hostIP	No	String	What host IP to bind the external port to.
hostPort	No	Integer	Number of port to expose on the host. If specified, this must be a valid port number, $0 < x < 65536$ . If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	No	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	No	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-1077** io.k8s.api.core.v1.SecurityContext

Parameter	Mandatory	Type	Description
allowPrivilegeEscalation	No	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN



Parameter	Mandatory	Type	Description
capabilities	No	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	No	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.
procMount	No	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	No	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	No	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

Parameter	Mandatory	Type	Description
runAsUser	No	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	No	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	No	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.
windowsOptions	No	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1078** io.k8s.api.core.v1.Capabilities

Parameter	Mandatory	Type	Description
add	No	Array of strings	Added capabilities
drop	No	Array of strings	Removed capabilities

**Table 5-1079** io.k8s.api.core.v1.Probe

Parameter	Mandatory	Type	Description
exec	No	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	No	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	No	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	No	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	No	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	No	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.
tcpSocket	No	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	No	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-1080** io.k8s.api.core.v1.ExecAction

Parameter	Mandatory	Type	Description
command	No	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-1081** io.k8s.api.core.v1.HTTPGetAction

Parameter	Mandatory	Type	Description
host	No	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	No	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	No	String	Path to access on the HTTP server.
port	Yes	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	No	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-1082** io.k8s.api.core.v1.HTTPHeader

Parameter	Mandatory	Type	Description
name	Yes	String	The header field name

Parameter	Mandatory	Type	Description
value	Yes	String	The header field value

**Table 5-1083** io.k8s.api.core.v1.TCPSocketAction

Parameter	Mandatory	Type	Description
host	No	String	Optional: Host name to connect to, defaults to the pod IP.
port	Yes	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-1084** io.k8s.api.core.v1.VolumeDevice

Parameter	Mandatory	Type	Description
devicePath	Yes	String	devicePath is the path inside of the container that the device will be mapped to.
name	Yes	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-1085** io.k8s.api.core.v1.VolumeMount

Parameter	Mandatory	Type	Description
extendPathMode	No	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	Yes	String	Path within the container at which the volume should be mounted. Must not contain ':'.

Parameter	Mandatory	Type	Description
mountPropagation	No	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	Yes	String	This must match the Name of a Volume.
policy	No	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	No	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	No	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	No	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$ (VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-1086** io.k8s.api.core.v1.Policy

Parameter	Mandatory	Type	Description
logs	No	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-1087** io.k8s.api.core.v1.Logs

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations for log.
rotate	Yes	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-1088** io.k8s.api.core.v1.PodReadinessGate

Parameter	Mandatory	Type	Description
conditionType	Yes	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-1089** io.k8s.api.core.v1.PodSecurityContext

Parameter	Mandatory	Type	Description
fsGroup	No	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>

Parameter	Mandatory	Type	Description
fsGroupChangePolicy	No	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	No	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.



Parameter	Mandatory	Type	Description
runAsUser	No	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seLinuxOptions	No	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	No	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	No	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	No	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	No	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1090** io.k8s.api.core.v1.SELinuxOptions

Parameter	Mandatory	Type	Description
level	No	String	Level is SELinux level label that applies to the container.
role	No	String	Role is a SELinux role label that applies to the container.
type	No	String	Type is a SELinux type label that applies to the container.
user	No	String	User is a SELinux user label that applies to the container.

**Table 5-1091** io.k8s.api.core.v1.SeccompProfile

Parameter	Mandatory	Type	Description
localhostProfile	No	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	Yes	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-1092** io.k8s.api.core.v1.Sysctl

Parameter	Mandatory	Type	Description
name	Yes	String	Name of a property to set
value	Yes	String	Value of a property to set

**Table 5-1093** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Mandatory	Type	Description
gmsaCredentialSpec	No	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	No	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	No	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1094** io.k8s.api.core.v1.Toleration

Parameter	Mandatory	Type	Description
effect	No	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	No	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.

Parameter	Mandatory	Type	Description
operator	No	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	No	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	No	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-1095** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Mandatory	Type	Description
labelSelector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Mandatory	Type	Description
maxSkew	Yes	Integer	<p>MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i>, it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3     P   P     - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1 (zone2) would make the ActualSkew(2-0) on zone1 (zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i>, it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.</p>
topologyKey	Yes	String	<p>TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each &lt;key, value&gt; as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.</p>

Parameter	Mandatory	Type	Description
whenUnsatisfiable	Yes	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3     P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-1096** io.k8s.api.core.v1.Volume

Parameter	Mandatory	Type	Description
awsElasticBlockStore	No	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

Parameter	Mandatory	Type	Description
azureDisk	No	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	No	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	No	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	No	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	No	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	No	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	No	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	No	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Mandatory	Type	Description
ephemeral	No	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	No	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	<p>FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.</p>
flexVolume	No	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	<p>FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.</p>



Parameter	Mandatory	Type	Description
flocker	No	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	No	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
gitRepo	No	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	No	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	No	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	No	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>

Parameter	Mandatory	Type	Description
localDir	No	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	Yes	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	No	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	No	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine
portworxVolume	No	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	No	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	No	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime

Parameter	Mandatory	Type	Description
rbd	No	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	No	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	No	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	No	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	No	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-1097** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

Parameter	Mandatory	Type	Description
partition	No	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	No	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticsearch">https://kubernetes.io/docs/concepts/storage/volumes#awselasticsearch</a>
volumeID	Yes	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticsearch">https://kubernetes.io/docs/concepts/storage/volumes#awselasticsearch</a>

**Table 5-1098** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Mandatory	Type	Description
cachingMode	No	String	Host Caching mode: None, Read Only, Read Write.
diskName	Yes	String	The Name of the data disk in the blob storage
diskURI	Yes	String	The URI the data disk in the blob storage
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.

Parameter	Mandatory	Type	Description
kind	No	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-1099** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	Yes	String	the name of secret that contains Azure Storage Account Name and Key
shareName	Yes	String	Share Name

**Table 5-1100** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Mandatory	Type	Description
monitors	Yes	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	No	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	No	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a>	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	No	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-1101** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

Parameter	Mandatory	Type	Description
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	Yes	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-1102** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-1103** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Mandatory	Type	Description
driver	Yes	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	No	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	No	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).



Parameter	Mandatory	Type	Description
volumeAttributes	No	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-1104** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	No	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-1105** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Mandatory	Type	Description
medium	No	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	No	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-1106** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Mandatory	Type	Description
volumeClaimTemplate	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-1107** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Mandatory	Type	Description
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	Yes	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-1108** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Mandatory	Type	Description
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>



Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-1109** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1110** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1111** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Mandatory	Type	Description
dataSource	No	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	No	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>

Parameter	Mandatory	Type	Description
volumeMode	No	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	No	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-1112** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Mandatory	Type	Description
apiGroup	No	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	Yes	String	Kind is the type of resource being referenced
name	Yes	String	Name is the name of resource being referenced

**Table 5-1113** io.k8s.api.core.v1.ResourceRequirements

Parameter	Mandatory	Type	Description
limits	No	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Mandatory	Type	Description
requests	No	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-1114** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	No	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-1115** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	key is the label key that the selector applies to.
operator	Yes	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.

Parameter	Mandatory	Type	Description
values	No	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-1116** io.k8s.api.core.v1.FCVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	No	Integer	Optional: FC target lun number
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	No	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	No	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-1117** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Mandatory	Type	Description
driver	Yes	String	Driver is the name of the driver to use for this volume.



Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	No	Map<String,String>	Optional: Extra command options if any.
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-1118** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Mandatory	Type	Description
datasetName	No	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	No	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-1119** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	No	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	Yes	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-1120** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Mandatory	Type	Description
directory	No	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	Yes	String	Repository URL
revision	No	String	Commit hash for the specified revision.

**Table 5-1121** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Mandatory	Type	Description
endpoints	Yes	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	Yes	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	No	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-1122** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Mandatory	Type	Description
path	Yes	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
type	No	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-1123** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Mandatory	Type	Description
chapAuthDiscovery	No	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	No	Boolean	whether support iSCSI Session CHAP authentication
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	No	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	Yes	String	Target iSCSI Qualified Name.
iscsiInterface	No	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Yes	Integer	iSCSI Target Lun number.

Parameter	Mandatory	Type	Description
portals	No	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	Yes	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-1124** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Mandatory	Type	Description
sizeLimit	No	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or</p>

Parameter	Mandatory	Type	Description
			<p>suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that will cause implementors to also use a fixed point implementation.</p>

**Table 5-1125** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Mandatory	Type	Description
path	Yes	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	No	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	Yes	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-1126** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Mandatory	Type	Description
claimName	Yes	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	No	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-1127** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	Yes	String	ID that identifies Photon Controller persistent disk

**Table 5-1128** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	FSType represents the filesystem type to mount Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	Yes	String	VolumeID uniquely identifies a Portworx volume



**Table 5-1129** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Yes	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-1130** io.k8s.api.core.v1.VolumeProjection

Parameter	Mandatory	Type	Description
configMap	No	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	No	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project
secret	No	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	No	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-1131** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '.' path or start with '..'.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-1132** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-1133** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Mandatory	Type	Description
fieldRef	No	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.

Parameter	Mandatory	Type	Description
mode	No	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	Yes	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	No	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-1134** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Mandatory	Type	Description
apiVersion	No	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	Yes	String	Path of the field to select in the specified API version.

**Table 5-1135** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Mandatory	Type	Description
containerName	No	String	Container name: required for volumes, optional for env vars

Parameter	Mandatory	Type	Description
divisor	No	String	Specifies the output format of the exposed resources, defaults to "1"
resource	Yes	String	Required: resource to select

**Table 5-1136** io.k8s.api.core.v1.SecretProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret or its key must be defined

**Table 5-1137** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Mandatory	Type	Description
audience	No	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	No	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	Yes	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-1138** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Mandatory	Type	Description
group	No	String	Group to map volume access to Default is no group
readOnly	No	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	Yes	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes

Parameter	Mandatory	Type	Description
tenant	No	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	No	String	User to map volume access to Defaults to serviceaccount user
volume	Yes	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-1139** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	Yes	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	No	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Yes	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
pool	No	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	No	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-1140** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	Yes	String	The host address of the ScaleIO API Gateway.
protectionDomain	No	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	Yes	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	No	Boolean	Flag to enable/disable SSL communication with Gateway, default false

Parameter	Mandatory	Type	Description
storageMode	No	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	No	String	The ScaleIO Storage Pool associated with the protection domain.
system	Yes	String	The name of the storage system as configured in ScaleIO.
volumeName	No	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-1141** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.



Parameter	Mandatory	Type	Description
items	No	Array of <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	No	Boolean	Specify whether the Secret or its keys must be defined
secretName	No	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-1142** io.k8s.api.core.v1.KeyToPath

Parameter	Mandatory	Type	Description
key	Yes	String	The key to project.
mode	No	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.

Parameter	Mandatory	Type	Description
path	Yes	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-1143** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	No	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.

Parameter	Mandatory	Type	Description
volumeNamespace	No	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-1144** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	No	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	No	String	Storage Policy Based Management (SPBM) profile name.
volumePath	Yes	String	Path that identifies vSphere volume vmdk

**Table 5-1145** io.k8s.api.core.v1.PodStatus

Parameter	Mandatory	Type	Description
conditions	No	Array of <a href="#">io.k8s.api.core.v1.PodCondition</a> objects	Current service state of pod. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
containerStatuses	No	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per container in the manifest. Each entry is currently the output of <i>docker inspect</i> . More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
ephemeralContainerStatuses	No	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	Status for any ephemeral containers that have run in this pod. This field is alpha-level and is only populated by servers that enable the EphemeralContainers feature.
hostIP	No	String	IP address of the host to which the pod is assigned. Empty if not yet scheduled.
initContainerStatuses	No	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per init container in the manifest. The most recent successful init container will have ready = true, the most recently started container will have startTime set. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
message	No	String	A human readable message indicating details about why the pod is in this condition.

Parameter	Mandatory	Type	Description
nominatedNodeName	No	String	nominatedNodeName is set only when this pod preempts other pods on the node, but it cannot be scheduled right away as preemption victims receive their graceful termination periods. This field does not guarantee that the pod will be scheduled on this node. Scheduler may decide to place the pod elsewhere if other nodes become available sooner. Scheduler may also decide to give the resources on this node to a higher priority pod that is created after preemption. As a result, this field may be different than PodSpec.nodeName when the pod is scheduled.

Parameter	Mandatory	Type	Description
phase	No	String	<p>The phase of a Pod is a simple, high-level summary of where the Pod is in its lifecycle. The conditions array, the reason and message fields, and the individual container status arrays contain more detail about the pod's status. There are five possible phase values:</p> <p><b>Pending:</b> The pod has been accepted by the Kubernetes system, but one or more of the container images has not been created. This includes time before being scheduled as well as time spent downloading images over the network, which could take a while.</p> <p><b>Running:</b> The pod has been bound to a node, and all of the containers have been created. At least one container is still running, or is in the process of starting or restarting.</p> <p><b>Succeeded:</b> All containers in the pod have terminated in success, and will not be restarted.</p> <p><b>Failed:</b> All containers in the pod have terminated, and at least one container has terminated in failure. The container either exited with non-zero status or was terminated by the system.</p> <p><b>Unknown:</b> For some reason the state of the pod could not be obtained, typically due to an error in communicating with the host of the pod.</p> <p>More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase</a></p>
podIP	No	String	IP address allocated to the pod. Routable at least within the cluster. Empty if not yet allocated.

Parameter	Mandatory	Type	Description
podIPs	No	Array of <a href="https://kubernetes.io/api-reference/v1/objects/PodIP">io.k8s.api.core.v1.PodIP</a> objects	podIPs holds the IP addresses allocated to the pod. If this field is specified, the 0th entry must match the podIP field. Pods may be allocated at most 1 value for each of IPv4 and IPv6. This list is empty if no IPs have been allocated yet.
qosClass	No	String	The Quality of Service (QOS) classification assigned to the pod based on resource requirements See PodQOSClass type for available QOS classes More info: <a href="https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md">https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md</a>
reason	No	String	A brief CamelCase message indicating details about why the pod is in this state. e.g. 'Evicted'
startTime	No	String	RFC 3339 date and time at which the object was acknowledged by the Kubelet. This is before the Kubelet pulled the container image(s) for the pod.

**Table 5-1146** io.k8s.api.core.v1.PodCondition

Parameter	Mandatory	Type	Description
lastProbeTime	No	String	Last time we probed the condition.
lastTransitionTime	No	String	Last time the condition transitioned from one status to another.
message	No	String	Human-readable message indicating details about last transition.
reason	No	String	Unique, one-word, CamelCase reason for the condition's last transition.

Parameter	Mandatory	Type	Description
status	Yes	String	Status is the status of the condition. Can be True, False, Unknown. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
type	Yes	String	Type is the type of the condition. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>

**Table 5-1147** io.k8s.api.core.v1.ContainerStatus

Parameter	Mandatory	Type	Description
containerID	No	String	Container's ID in the format 'docker://<container_id>'.
image	Yes	String	The image the container is running. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imageID	Yes	String	ImageID of the container's image.
lastState	No	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's last termination condition.
name	Yes	String	This must be a DNS_LABEL. Each container in a pod must have a unique name. Cannot be updated.
ready	Yes	Boolean	Specifies whether the container has passed its readiness probe.



Parameter	Mandatory	Type	Description
restartCount	Yes	Integer	The number of times the container has been restarted, currently based on the number of dead containers that have not yet been removed. Note that this is calculated from dead containers. But those containers are subject to garbage collection. This value will get capped at 5 by GC.
started	No	Boolean	Specifies whether the container has passed its startup probe. Initialized as false, becomes true after startupProbe is considered successful. Resets to false when the container is restarted, or if kubelet loses state temporarily. Is always true when no startupProbe is defined.
state	No	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's current condition.

**Table 5-1148** io.k8s.api.core.v1.ContainerState

Parameter	Mandatory	Type	Description
running	No	<a href="#">io.k8s.api.core.v1.ContainerStateRunning</a> object	Details about a running container
terminated	No	<a href="#">io.k8s.api.core.v1.ContainerStateTerminated</a> object	Details about a terminated container
waiting	No	<a href="#">io.k8s.api.core.v1.ContainerStateWaiting</a> object	Details about a waiting container

**Table 5-1149** io.k8s.api.core.v1.ContainerStateRunning

Parameter	Mandatory	Type	Description
startedAt	No	String	Time at which the container was last (re-)started

**Table 5-1150** io.k8s.api.core.v1.ContainerStateTerminated

Parameter	Mandatory	Type	Description
containerID	No	String	Container's ID in the format 'docker://<container_id>'
exitCode	Yes	Integer	Exit status from the last termination of the container
finishedAt	No	String	Time at which the container last terminated
message	No	String	Message regarding the last termination of the container
reason	No	String	(brief) reason from the last termination of the container
signal	No	Integer	Signal from the last termination of the container
startedAt	No	String	Time at which previous execution of the container started

**Table 5-1151** io.k8s.api.core.v1.ContainerStateWaiting

Parameter	Mandatory	Type	Description
message	No	String	Message regarding why the container is not yet running.
reason	No	String	(brief) reason the container is not yet running.

**Table 5-1152** io.k8s.api.core.v1.PodIP

Parameter	Mandatory	Type	Description
ip	No	String	ip is an IP address (IPv4 or IPv6) assigned to the pod

## Response Parameters

Status code: 200

**Table 5-1153** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.PodStatus</a> object	Most recently observed status of the pod. This data may not be up to date. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1154** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.

Parameter	Type	Description
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAlias</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.

Parameter	Type	Description
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/LocalObjectReference">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/Container">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.

Parameter	Type	Description
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.

Parameter	Type	Description
readinessGate s	Array of <a href="#">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClass Name	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerNa me	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityConte xt	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccoun t	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccoun tName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>

Parameter	Type	Description
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.



Parameter	Type	Description
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-1155** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-1156** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-1157** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-1158** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-1159** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-1160** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-1161** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-1162** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-1163** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-1164** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-1165** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-1166** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-1167** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.



Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-1168** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-1169** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-1170** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-1171** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-1172** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-1173** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-1174** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-1175** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-1176** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-1177** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-1178** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-1179** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.



Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-1180** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-1181** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1182** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-1183** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCP socket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-1184** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-1185** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-1186** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-1187** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-1188** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-1189** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-1190** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-1191** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-1192** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-1193** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1194** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.



**Table 5-1195** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-1196** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-1197** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1198** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-1199** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-1200** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-1201** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-1202** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared



Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-1203** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-1204** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-1205** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-1206** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-1207** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-1208** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-1209** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-1210** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-1211** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-1212** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>



Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1213** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1214** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1215** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-1216** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-1217** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-1218** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-1219** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-1220** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-1221** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-1222** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-1223** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-1224** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-1225** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-1226** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>



Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-1227** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-1228** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-1229** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-1230** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-1231** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-1232** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-1233** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-1234** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-1235** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-1236** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-1237** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-1238** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-1239** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-1240** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-1241** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-1242** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-1243** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>



Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-1244** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-1245** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-1246** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-1247** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-1248** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-1249** io.k8s.api.core.v1.PodStatus

Parameter	Type	Description
conditions	Array of <a href="#">io.k8s.api.core.v1.PodCondition</a> objects	Current service state of pod. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
containerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per container in the manifest. Each entry is currently the output of <i>docker inspect</i> . More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
ephemeralContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	Status for any ephemeral containers that have run in this pod. This field is alpha-level and is only populated by servers that enable the EphemeralContainers feature.
hostIP	String	IP address of the host to which the pod is assigned. Empty if not yet scheduled.
initContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per init container in the manifest. The most recent successful init container will have ready = true, the most recently started container will have startTime set. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
message	String	A human readable message indicating details about why the pod is in this condition.

Parameter	Type	Description
nominatedNodeName	String	nominatedNodeName is set only when this pod preempts other pods on the node, but it cannot be scheduled right away as preemption victims receive their graceful termination periods. This field does not guarantee that the pod will be scheduled on this node. Scheduler may decide to place the pod elsewhere if other nodes become available sooner. Scheduler may also decide to give the resources on this node to a higher priority pod that is created after preemption. As a result, this field may be different than PodSpec.nodeName when the pod is scheduled.
phase	String	The phase of a Pod is a simple, high-level summary of where the Pod is in its lifecycle. The conditions array, the reason and message fields, and the individual container status arrays contain more detail about the pod's status. There are five possible phase values:  Pending: The pod has been accepted by the Kubernetes system, but one or more of the container images has not been created. This includes time before being scheduled as well as time spent downloading images over the network, which could take a while. Running: The pod has been bound to a node, and all of the containers have been created. At least one container is still running, or is in the process of starting or restarting. Succeeded: All containers in the pod have terminated in success, and will not be restarted. Failed: All containers in the pod have terminated, and at least one container has terminated in failure. The container either exited with non-zero status or was terminated by the system. Unknown: For some reason the state of the pod could not be obtained, typically due to an error in communicating with the host of the pod.  More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase</a>
podIP	String	IP address allocated to the pod. Routable at least within the cluster. Empty if not yet allocated.
podIPs	Array of <a href="https://kubernetes.io/docs/api/1.27/#io.k8s.api.core.v1.PodIP">io.k8s.api.core.v1.PodIP</a> objects	podIPs holds the IP addresses allocated to the pod. If this field is specified, the 0th entry must match the podIP field. Pods may be allocated at most 1 value for each of IPv4 and IPv6. This list is empty if no IPs have been allocated yet.

Parameter	Type	Description
qosClass	String	The Quality of Service (QOS) classification assigned to the pod based on resource requirements See PodQOSClass type for available QOS classes More info: <a href="https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md">https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md</a>
reason	String	A brief CamelCase message indicating details about why the pod is in this state. e.g. 'Evicted'
startTime	String	RFC 3339 date and time at which the object was acknowledged by the Kubelet. This is before the Kubelet pulled the container image(s) for the pod.

**Table 5-1250** io.k8s.api.core.v1.PodCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransition Time	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.
status	String	Status is the status of the condition. Can be True, False, Unknown. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
type	String	Type is the type of the condition. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>

**Table 5-1251** io.k8s.api.core.v1.ContainerStatus

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'.
image	String	The image the container is running. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imageID	String	ImageID of the container's image.
lastState	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's last termination condition.
name	String	This must be a DNS_LABEL. Each container in a pod must have a unique name. Cannot be updated.
ready	Boolean	Specifies whether the container has passed its readiness probe.
restartCount	Integer	The number of times the container has been restarted, currently based on the number of dead containers that have not yet been removed. Note that this is calculated from dead containers. But those containers are subject to garbage collection. This value will get capped at 5 by GC.
started	Boolean	Specifies whether the container has passed its startup probe. Initialized as false, becomes true after startupProbe is considered successful. Resets to false when the container is restarted, or if kubelet loses state temporarily. Is always true when no startupProbe is defined.
state	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's current condition.

**Table 5-1252** io.k8s.api.core.v1.ContainerState

Parameter	Type	Description
running	<a href="#">io.k8s.api.core.v1.ContainerStateRunning</a> object	Details about a running container
terminated	<a href="#">io.k8s.api.core.v1.ContainerStateTerminated</a> object	Details about a terminated container
waiting	<a href="#">io.k8s.api.core.v1.ContainerStateWaiting</a> object	Details about a waiting container

**Table 5-1253** io.k8s.api.core.v1.ContainerStateRunning

Parameter	Type	Description
startedAt	String	Time at which the container was last (re-)started

**Table 5-1254** io.k8s.api.core.v1.ContainerStateTerminated

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'
exitCode	Integer	Exit status from the last termination of the container
finishedAt	String	Time at which the container last terminated
message	String	Message regarding the last termination of the container
reason	String	(brief) reason from the last termination of the container
signal	Integer	Signal from the last termination of the container
startedAt	String	Time at which previous execution of the container started

**Table 5-1255** io.k8s.api.core.v1.ContainerStateWaiting

Parameter	Type	Description
message	String	Message regarding why the container is not yet running.
reason	String	(brief) reason the container is not yet running.

**Table 5-1256** io.k8s.api.core.v1.PodIP

Parameter	Type	Description
ip	String	ip is an IP address (IPv4 or IPv6) assigned to the pod

**Status code: 201**



**Table 5-1257** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.PodStatus</a> object	Most recently observed status of the pod. This data may not be up to date. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1258** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints

Parameter	Type	Description
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.

Parameter	Type	Description
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/LocalObjectReference">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/Container">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.

Parameter	Type	Description
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.

Parameter	Type	Description
readinessGate s	Array of <a href="#">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClass Name	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerNa me	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityConte xt	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccoun t	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccoun tName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>

Parameter	Type	Description
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.

Parameter	Type	Description
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-1259** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-1260** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-1261** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-1262** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.



**Table 5-1263** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-1264** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-1265** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-1266** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringSchedulingIgnoredDuringExecution anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-1267** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-1268** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-1269** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-1270** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-1271** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-1272** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-1273** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-1274** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.



Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-1275** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-1276** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-1277** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-1278** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-1279** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-1280** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-1281** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-1282** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-1283** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-1284** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-1285** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.



Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1286** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-1287** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-1288** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-1289** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-1290** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-1291** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-1292** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-1293** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'. Must not contain '..'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-1294** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-1295** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-1296** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-1297** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>
fsGroupChangePolicy	String	<p>fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".</p>
runAsGroup	Long	<p>The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>
runAsNonRoot	Boolean	<p>Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.</p>
runAsUser	Long	<p>The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1298** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-1299** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-1300** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-1301** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1302** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-1303** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.



Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-1304** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-1305** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-1306** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-1307** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-1308** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-1309** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-1310** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.



Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-1311** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-1312** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-1313** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-1314** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to be updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-1315** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-1316** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1317** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.



Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1318** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1319** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-1320** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-1321** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-1322** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-1323** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-1324** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-1325** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-1326** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-1327** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-1328** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-1329** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-1330** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-1331** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-1332** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>



Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-1333** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-1334** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-1335** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-1336** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-1337** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-1338** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-1339** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-1340** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-1341** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-1342** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-1343** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-1344** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-1345** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-1346** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-1347** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-1348** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-1349** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-1350** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.



Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-1351** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-1352** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-1353** io.k8s.api.core.v1.PodStatus

Parameter	Type	Description
conditions	Array of <a href="#">io.k8s.api.core.v1.PodCondition</a> objects	Current service state of pod. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
containerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per container in the manifest. Each entry is currently the output of <i>docker inspect</i> . More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
ephemeralContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	Status for any ephemeral containers that have run in this pod. This field is alpha-level and is only populated by servers that enable the EphemeralContainers feature.
hostIP	String	IP address of the host to which the pod is assigned. Empty if not yet scheduled.
initContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per init container in the manifest. The most recent successful init container will have ready = true, the most recently started container will have startTime set. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
message	String	A human readable message indicating details about why the pod is in this condition.

Parameter	Type	Description
nominatedNodeName	String	nominatedNodeName is set only when this pod preempts other pods on the node, but it cannot be scheduled right away as preemption victims receive their graceful termination periods. This field does not guarantee that the pod will be scheduled on this node. Scheduler may decide to place the pod elsewhere if other nodes become available sooner. Scheduler may also decide to give the resources on this node to a higher priority pod that is created after preemption. As a result, this field may be different than PodSpec.nodeName when the pod is scheduled.
phase	String	The phase of a Pod is a simple, high-level summary of where the Pod is in its lifecycle. The conditions array, the reason and message fields, and the individual container status arrays contain more detail about the pod's status. There are five possible phase values:  Pending: The pod has been accepted by the Kubernetes system, but one or more of the container images has not been created. This includes time before being scheduled as well as time spent downloading images over the network, which could take a while. Running: The pod has been bound to a node, and all of the containers have been created. At least one container is still running, or is in the process of starting or restarting. Succeeded: All containers in the pod have terminated in success, and will not be restarted. Failed: All containers in the pod have terminated, and at least one container has terminated in failure. The container either exited with non-zero status or was terminated by the system. Unknown: For some reason the state of the pod could not be obtained, typically due to an error in communicating with the host of the pod.  More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase</a>
podIP	String	IP address allocated to the pod. Routable at least within the cluster. Empty if not yet allocated.
podIPs	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/PodIP">io.k8s.api.core.v1.PodIP</a> objects	podIPs holds the IP addresses allocated to the pod. If this field is specified, the 0th entry must match the podIP field. Pods may be allocated at most 1 value for each of IPv4 and IPv6. This list is empty if no IPs have been allocated yet.

Parameter	Type	Description
qosClass	String	The Quality of Service (QOS) classification assigned to the pod based on resource requirements See PodQOSClass type for available QOS classes More info: <a href="https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md">https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md</a>
reason	String	A brief CamelCase message indicating details about why the pod is in this state. e.g. 'Evicted'
startTime	String	RFC 3339 date and time at which the object was acknowledged by the Kubelet. This is before the Kubelet pulled the container image(s) for the pod.

**Table 5-1354** io.k8s.api.core.v1.PodCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransition Time	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.
status	String	Status is the status of the condition. Can be True, False, Unknown. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
type	String	Type is the type of the condition. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>

**Table 5-1355** io.k8s.api.core.v1.ContainerStatus

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'.
image	String	The image the container is running. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imageID	String	ImageID of the container's image.
lastState	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's last termination condition.
name	String	This must be a DNS_LABEL. Each container in a pod must have a unique name. Cannot be updated.
ready	Boolean	Specifies whether the container has passed its readiness probe.
restartCount	Integer	The number of times the container has been restarted, currently based on the number of dead containers that have not yet been removed. Note that this is calculated from dead containers. But those containers are subject to garbage collection. This value will get capped at 5 by GC.
started	Boolean	Specifies whether the container has passed its startup probe. Initialized as false, becomes true after startupProbe is considered successful. Resets to false when the container is restarted, or if kubelet loses state temporarily. Is always true when no startupProbe is defined.
state	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's current condition.

**Table 5-1356** io.k8s.api.core.v1.ContainerState

Parameter	Type	Description
running	<a href="#">io.k8s.api.core.v1.ContainerStateRunning</a> object	Details about a running container
terminated	<a href="#">io.k8s.api.core.v1.ContainerStateTerminated</a> object	Details about a terminated container
waiting	<a href="#">io.k8s.api.core.v1.ContainerStateWaiting</a> object	Details about a waiting container

**Table 5-1357** io.k8s.api.core.v1.ContainerStateRunning

Parameter	Type	Description
startedAt	String	Time at which the container was last (re-)started

**Table 5-1358** io.k8s.api.core.v1.ContainerStateTerminated

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'
exitCode	Integer	Exit status from the last termination of the container
finishedAt	String	Time at which the container last terminated
message	String	Message regarding the last termination of the container
reason	String	(brief) reason from the last termination of the container
signal	Integer	Signal from the last termination of the container
startedAt	String	Time at which previous execution of the container started

**Table 5-1359** io.k8s.api.core.v1.ContainerStateWaiting

Parameter	Type	Description
message	String	Message regarding why the container is not yet running.
reason	String	(brief) reason the container is not yet running.

**Table 5-1360** io.k8s.api.core.v1.PodIP

Parameter	Type	Description
ip	String	ip is an IP address (IPv4 or IPv6) assigned to the pod

## Example Requests

Changing the image of an existing pod to **redis:latest**

```
{
  "apiVersion": "v1",
  "kind": "Pod",
  "metadata": {
    "labels": {
      "name": "pod-test"
    },
    "name": "pod-test"
  },
  "spec": {
    "containers": [ {
      "image": "redis:latest",
      "imagePullPolicy": "Always",
      "name": "test",
      "resources": {
        "limits": {
          "cpu": "0.5",
          "memory": "1024Mi"
        },
        "requests": {
          "cpu": "0.5",
          "memory": "1024Mi"
        }
      }
    }
  ],
  "imagePullSecrets": [ {
    "name": "imagepull-secret"
  } ],
  "restartPolicy": "Always"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "Pod",
  "metadata": {
    "creationTimestamp": "2018-09-04T11:04:02Z",
    "labels": {
      "name": "pod-test"
    },
    "name": "pod-test",
    "namespace": "namespace-test",
    "resourceVersion": "5253248",
    "selfLink": "/api/v1/namespaces/namespace-test/pods/pod-test",
    "uid": "3b99abe8-b032-11e8-9d5d-c88d83be759f"
  },
  "spec": {
    "containers": [ {
      "image": "redis:latest",
      "imagePullPolicy": "Always",
      "name": "test",
      "resources": {
        "limits": {
          "cpu": "500m",
          "memory": "1Gi"
        },
        "requests": {
          "cpu": "500m",
          "memory": "1Gi"
        }
      }
    }
  ],
  "terminationMessagePath": "/dev/termination-log",
  "terminationMessagePolicy": "File"
}
```

```

    }],
    "dnsPolicy": "ClusterFirst",
    "imagePullSecrets": [{
      "name": "imagepull-secret"
    }],
    "restartPolicy": "Always",
    "schedulerName": "default-scheduler",
    "securityContext": { },
    "tolerations": [{
      "effect": "NoExecute",
      "key": "node.kubernetes.io/not-ready",
      "operator": "Exists",
      "tolerationSeconds": 300
    }, {
      "effect": "NoExecute",
      "key": "node.kubernetes.io/unreachable",
      "operator": "Exists",
      "tolerationSeconds": 300
    }
  ]
},
"status": {
  "conditions": [ {
    "lastProbeTime": null,
    "lastTransitionTime": "2018-09-04T11:04:03Z",
    "status": "True",
    "type": "Initialized"
  }, {
    "lastProbeTime": null,
    "lastTransitionTime": "2018-09-04T11:04:36Z",
    "status": "True",
    "type": "Ready"
  }, {
    "lastProbeTime": null,
    "lastTransitionTime": "2018-09-04T11:04:02Z",
    "status": "True",
    "type": "PodScheduled"
  } ],
  "containerStatuses": [ {
    "containerID": "docker://f867ab7d5c68a86fc695e4d3e5f1912fdb8f98f5029ca96032b4d5d407d9a75c",
    "image": "redis",
    "imageID": "docker-pullable://
redis@sha256:3ab7046bd035a47aa06963d8240651d00b57e82dab07ba374ad01f84dfa1230c",
    "lastState": { },
    "name": "test",
    "ready": true,
    "restartCount": 0,
    "state": {
      "running": {
        "startedAt": "2018-09-04T11:04:23Z"
      }
    }
  } ],
  "hostIP": "xxx.xxx.xxx.xxx",
  "phase": "Running",
  "podIP": "192.168.244.170",
  "qosClass": "Guaranteed",
  "startTime": "2018-09-04T11:04:03Z"
}
}

```

## Status Codes

Status Code	Description
200	OK



Status Code	Description
201	Created
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.2.8 Running Commands in a Container

### Function

This API is used to run commands in a container.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /api/v1/namespaces/{namespace}/pods/{name}/exec

**Table 5-1361** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the PodExecOptions
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-1362** Query Parameters

Parameter	Mandatory	Type	Description
command	No	String	Command is the remote command to execute. argv array. Not executed within a shell.
container	No	String	Container in which to execute the command. Defaults to only container if there is only one container in the pod.
stderr	No	Boolean	Redirect the standard error stream of the pod for this call. Defaults to true.
stdin	No	Boolean	Redirect the standard input stream of the pod for this call. Defaults to false.
stdout	No	Boolean	Redirect the standard output stream of the pod for this call. Defaults to true.
tty	No	Boolean	TTY if true indicates that a tty will be allocated for the exec call. Defaults to false.

## Request Parameters

**Table 5-1363** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

None

## Example Requests

None

## Example Responses

None

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.2.9 Running Commands in a Container

### Function

This API is used to run commands in a container.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /api/v1/namespaces/{namespace}/pods/{name}/exec

**Table 5-1364** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the PodExecOptions
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-1365** Query Parameters

Parameter	Mandatory	Type	Description
command	No	String	Command is the remote command to execute. argv array. Not executed within a shell.
container	No	String	Container in which to execute the command. Defaults to only container if there is only one container in the pod.
stderr	No	Boolean	Redirect the standard error stream of the pod for this call. Defaults to true.
stdin	No	Boolean	Redirect the standard input stream of the pod for this call. Defaults to false.
stdout	No	Boolean	Redirect the standard output stream of the pod for this call. Defaults to true.
tty	No	Boolean	TTY if true indicates that a tty will be allocated for the exec call. Defaults to false.

## Request Parameters

**Table 5-1366** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

## Response Parameters

None

## Example Requests

None

## Example Responses

None

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	AlreadyExists
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.2.10 Querying Pod Logs

### Function

This API is used to query the logs of a specified pod.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /api/v1/namespaces/{namespace}/pods/{name}/log

**Table 5-1367** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Pod
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-1368** Query Parameters

Parameter	Mandatory	Type	Description
container	No	String	The container for which to stream logs. Defaults to only container if there is one container in the pod.
follow	No	Boolean	Follow the log stream of the pod. Defaults to false.

Parameter	Mandatory	Type	Description
insecureSkipTLSVerifyBackend	No	Boolean	insecureSkipTLSVerifyBackend indicates that the apiserver should not confirm the validity of the serving certificate of the backend it is connecting to. This will make the HTTPS connection between the apiserver and the backend insecure. This means the apiserver cannot verify the log data it is receiving came from the real kubelet. If the kubelet is configured to verify the apiserver's TLS credentials, it does not mean the connection to the real kubelet is vulnerable to a man in the middle attack (e.g. an attacker could not intercept the actual log data coming from the real kubelet).
limitBytes	No	Integer	If set, the number of bytes to read from the server before terminating the log output. This may not display a complete final line of logging, and may return slightly more or slightly less than the specified limit.
pretty	No	String	If 'true', then the output is pretty printed.
previous	No	Boolean	Return previous terminated container logs. Defaults to false.
sinceSeconds	No	Integer	A relative time in seconds before the current time from which to show logs. If this value precedes the time a pod was started, only logs since the pod start will be returned. If this value is in the future, no logs will be returned. Only one of sinceSeconds or sinceTime may be specified.

Parameter	Mandatory	Type	Description
tailLines	No	Integer	If set, the number of lines from the end of the logs to show. If not specified, logs are shown from the creation of the container or sinceSeconds or sinceTime
timestamps	No	Boolean	If true, add an RFC3339 or RFC3339Nano timestamp at the beginning of every line of log output. Defaults to false.

## Request Parameters

**Table 5-1369** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

None

## Example Requests

None

## Example Responses

None

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized



Status Code	Description
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.2.11 Querying the Status of a Pod

### Function

This API is used to query the status of a specified pod.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /api/v1/namespaces/{namespace}/pods/{name}/status

**Table 5-1370** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Pod
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-1371** Query Parameters

Parameter	Mandatory	Type	Description
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-1372** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-1373** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.PodStatus</a> object	Most recently observed status of the pod. This data may not be up to date. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1374** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.

Parameter	Type	Description
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>

Parameter	Type	Description
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	nodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/apis/core/v1/#pod-readiness-gate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-1375** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.



Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-1376** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-1377** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.

Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-1378** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-1379** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-1380** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-1381** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-1382** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-1383** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-1384** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-1385** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-1386** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-1387** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.



Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-1388** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-1389** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-1390** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-1391** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-1392** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-1393** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-1394** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-1395** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-1396** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-1397** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-1398** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-1399** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.



Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-1400** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-1401** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1402** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-1403** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-1404** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-1405** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-1406** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-1407** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-1408** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-1409** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-1410** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-1411** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-1412** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-1413** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1414** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.



**Table 5-1415** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-1416** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-1417** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1418** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-1419** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-1420** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-1421** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-1422** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared



Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-1423** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-1424** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-1425** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-1426** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-1427** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-1428** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-1429** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-1430** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-1431** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-1432** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>



Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-1433** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1434** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1435** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-1436** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-1437** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-1438** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-1439** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-1440** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-1441** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-1442** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-1443** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-1444** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-1445** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-1446** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>



Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-1447** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-1448** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-1449** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-1450** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-1451** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-1452** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-1453** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-1454** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-1455** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-1456** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-1457** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-1458** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-1459** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-1460** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-1461** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-1462** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-1463** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>



Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-1464** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-1465** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-1466** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-1467** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-1468** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-1469** io.k8s.api.core.v1.PodStatus

Parameter	Type	Description
conditions	Array of <a href="#">io.k8s.api.core.v1.PodCondition</a> objects	Current service state of pod. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
containerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per container in the manifest. Each entry is currently the output of <i>docker inspect</i> . More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
ephemeralContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	Status for any ephemeral containers that have run in this pod. This field is alpha-level and is only populated by servers that enable the EphemeralContainers feature.
hostIP	String	IP address of the host to which the pod is assigned. Empty if not yet scheduled.
initContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per init container in the manifest. The most recent successful init container will have ready = true, the most recently started container will have startTime set. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
message	String	A human readable message indicating details about why the pod is in this condition.

Parameter	Type	Description
nominatedNodeName	String	nominatedNodeName is set only when this pod preempts other pods on the node, but it cannot be scheduled right away as preemption victims receive their graceful termination periods. This field does not guarantee that the pod will be scheduled on this node. Scheduler may decide to place the pod elsewhere if other nodes become available sooner. Scheduler may also decide to give the resources on this node to a higher priority pod that is created after preemption. As a result, this field may be different than PodSpec.nodeName when the pod is scheduled.
phase	String	The phase of a Pod is a simple, high-level summary of where the Pod is in its lifecycle. The conditions array, the reason and message fields, and the individual container status arrays contain more detail about the pod's status. There are five possible phase values:  Pending: The pod has been accepted by the Kubernetes system, but one or more of the container images has not been created. This includes time before being scheduled as well as time spent downloading images over the network, which could take a while. Running: The pod has been bound to a node, and all of the containers have been created. At least one container is still running, or is in the process of starting or restarting. Succeeded: All containers in the pod have terminated in success, and will not be restarted. Failed: All containers in the pod have terminated, and at least one container has terminated in failure. The container either exited with non-zero status or was terminated by the system. Unknown: For some reason the state of the pod could not be obtained, typically due to an error in communicating with the host of the pod.  More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase</a>
podIP	String	IP address allocated to the pod. Routable at least within the cluster. Empty if not yet allocated.
podIPs	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/PodIP">io.k8s.api.core.v1.PodIP</a> objects	podIPs holds the IP addresses allocated to the pod. If this field is specified, the 0th entry must match the podIP field. Pods may be allocated at most 1 value for each of IPv4 and IPv6. This list is empty if no IPs have been allocated yet.

Parameter	Type	Description
qosClass	String	The Quality of Service (QOS) classification assigned to the pod based on resource requirements See PodQOSClass type for available QOS classes More info: <a href="https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md">https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md</a>
reason	String	A brief CamelCase message indicating details about why the pod is in this state. e.g. 'Evicted'
startTime	String	RFC 3339 date and time at which the object was acknowledged by the Kubelet. This is before the Kubelet pulled the container image(s) for the pod.

**Table 5-1470** io.k8s.api.core.v1.PodCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.
status	String	Status is the status of the condition. Can be True, False, Unknown. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
type	String	Type is the type of the condition. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>

**Table 5-1471** io.k8s.api.core.v1.ContainerStatus

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'.
image	String	The image the container is running. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imageID	String	ImageID of the container's image.
lastState	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's last termination condition.
name	String	This must be a DNS_LABEL. Each container in a pod must have a unique name. Cannot be updated.
ready	Boolean	Specifies whether the container has passed its readiness probe.
restartCount	Integer	The number of times the container has been restarted, currently based on the number of dead containers that have not yet been removed. Note that this is calculated from dead containers. But those containers are subject to garbage collection. This value will get capped at 5 by GC.
started	Boolean	Specifies whether the container has passed its startup probe. Initialized as false, becomes true after startupProbe is considered successful. Resets to false when the container is restarted, or if kubelet loses state temporarily. Is always true when no startupProbe is defined.
state	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's current condition.

**Table 5-1472** io.k8s.api.core.v1.ContainerState

Parameter	Type	Description
running	<a href="#">io.k8s.api.core.v1.ContainerStateRunning</a> object	Details about a running container
terminated	<a href="#">io.k8s.api.core.v1.ContainerStateTerminated</a> object	Details about a terminated container
waiting	<a href="#">io.k8s.api.core.v1.ContainerStateWaiting</a> object	Details about a waiting container

**Table 5-1473** io.k8s.api.core.v1.ContainerStateRunning

Parameter	Type	Description
startedAt	String	Time at which the container was last (re-)started

**Table 5-1474** io.k8s.api.core.v1.ContainerStateTerminated

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'
exitCode	Integer	Exit status from the last termination of the container
finishedAt	String	Time at which the container last terminated
message	String	Message regarding the last termination of the container
reason	String	(brief) reason from the last termination of the container
signal	Integer	Signal from the last termination of the container
startedAt	String	Time at which previous execution of the container started

**Table 5-1475** io.k8s.api.core.v1.ContainerStateWaiting

Parameter	Type	Description
message	String	Message regarding why the container is not yet running.
reason	String	(brief) reason the container is not yet running.

**Table 5-1476** io.k8s.api.core.v1.PodIP

Parameter	Type	Description
ip	String	ip is an IP address (IPv4 or IPv6) assigned to the pod

## Example Requests

None



## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "v1",
  "kind": "Pod",
  "metadata": {
    "annotations": {
      "cri.cci.io/container-type": "secure-container",
      "kubernetes.io/availablezone": "dc1",
      "network.alpha.kubernetes.io/network": "[{"name":"namespace-test-dc1-default-network",
      "interface":"eth0","network_plane":"default"}]"
    },
    "creationTimestamp": "2018-09-03T12:26:12Z",
    "labels": {
      "name": "pod-test"
    },
    "name": "pod-test",
    "namespace": "namespace-test",
    "resourceVersion": "5030610",
    "selfLink": "/api/v1/namespaces/namespace-test/pods/pod-test",
    "uid": "8b985a27-af74-11e8-9d5d-c88d83be759f"
  },
  "spec": {
    "containers": [ {
      "image": "redis",
      "imagePullPolicy": "Always",
      "name": "test",
      "resources": {
        "limits": {
          "cpu": "500m",
          "memory": "1Gi"
        },
        "requests": {
          "cpu": "500m",
          "memory": "1Gi"
        }
      }
    },
    "terminationMessagePath": "/dev/termination-log",
    "terminationMessagePolicy": "File"
  },
  "dnsPolicy": "ClusterFirst",
  "imagePullSecrets": [ {
    "name": "imagepull-secret"
  } ],
  "nodeName": "c0dd6256-195a-e811-90a2-10c17294fcbc",
  "restartPolicy": "Always",
  "schedulerName": "default-scheduler",
  "securityContext": { },
  "tolerations": [ {
    "effect": "NoExecute",
    "key": "node.kubernetes.io/not-ready",
    "operator": "Exists",
    "tolerationSeconds": 300
  }, {
    "effect": "NoExecute",
    "key": "node.kubernetes.io/unreachable",
    "operator": "Exists",
    "tolerationSeconds": 300
  } ]
},
"status": {
  "conditions": [ {
    "lastProbeTime": null,
    "lastTransitionTime": "2018-09-03T12:26:12Z",
    "status": "True",
```

```
    "type" : "Initialized"
  }, {
    "lastProbeTime" : null,
    "lastTransitionTime" : "2018-09-03T12:26:16Z",
    "status" : "True",
    "type" : "Ready"
  }, {
    "lastProbeTime" : null,
    "lastTransitionTime" : "2018-09-03T12:26:12Z",
    "status" : "True",
    "type" : "PodScheduled"
  } ],
  "containerStatuses" : [ {
    "containerID" : "docker://aee55d8dedb8371f96aa5d5116f69a53bf1cb23afe1802567c24081514d3b048",
    "image" : "redis",
    "imageID" : "docker-pullable://
redis@sha256:3ab7046bd035a47aa06963d8240651d00b57e82dab07ba374ad01f84dfa1230c",
    "lastState" : { },
    "name" : "test",
    "ready" : true,
    "restartCount" : 0,
    "state" : {
      "running" : {
        "startedAt" : "2018-09-03T12:26:16Z"
      }
    }
  } ],
  "phase" : "Running",
  "podIP" : "192.168.245.185",
  "qosClass" : "Guaranteed",
  "startTime" : "2018-09-03T12:26:12Z"
}
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable

Status Code	Description
504	ServerTimeout

## 5.2.12 Querying All Pods

### Function

This API is used to query all pods.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /api/v1/pods

**Table 5-1477** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>
pretty	No	String	If 'true', then the output is pretty printed.

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.

## Request Parameters

**Table 5-1478** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-1479** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.core.v1.Pod</a> objects	List of pods. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

**Table 5-1480** io.k8s.api.core.v1.Pod

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.PodStatus</a> object	Most recently observed status of the pod. This data may not be up to date. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1481** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.



Parameter	Type	Description
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAlias</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.

Parameter	Type	Description
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/objects/PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-1482** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-1483** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-1484** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.

Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-1485** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-1486** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-1487** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-1488** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.



**Table 5-1489** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-1490** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-1491** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-1492** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-1493** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-1494** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-1495** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-1496** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-1497** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>



Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-1498** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-1499** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <i>metadata.name</i> , <i>metadata.namespace</i> , <i>metadata.labels['&lt;KEY&gt;']</i> , <i>metadata.annotations['&lt;KEY&gt;']</i> , <i>spec.nodeName</i> , <i>spec.serviceAccountName</i> , <i>status.hostIP</i> , <i>status.podIP</i> , <i>status.podIPs</i> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-1500** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-1501** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-1502** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-1503** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-1504** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-1505** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-1506** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-1507** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-1508** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1509** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-1510** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.



Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-1511** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-1512** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-1513** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-1514** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-1515** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-1516** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-1517** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-1518** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-1519** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-1520** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1521** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-1522** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-1523** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-1524** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1525** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-1526** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.



**Table 5-1527** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-1528** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-1529** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-1530** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-1531** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-1532** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-1533** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-1534** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.



**Table 5-1535** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-1536** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-1537** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-1538** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-1539** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1540** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1541** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1542** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>



Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-1543** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-1544** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-1545** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-1546** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-1547** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-1548** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-1549** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-1550** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-1551** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-1552** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-1553** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-1554** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-1555** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-1556** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-1557** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-1558** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk



**Table 5-1559** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-1560** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-1561** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-1562** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-1563** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-1564** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-1565** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-1566** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-1567** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-1568** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-1569** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-1570** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-1571** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-1572** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-1573** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-1574** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.



**Table 5-1575** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-1576** io.k8s.api.core.v1.PodStatus

Parameter	Type	Description
conditions	Array of <a href="#">io.k8s.api.core.v1.PodCondition</a> objects	Current service state of pod. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
containerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per container in the manifest. Each entry is currently the output of <i>docker inspect</i> . More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
ephemeralContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	Status for any ephemeral containers that have run in this pod. This field is alpha-level and is only populated by servers that enable the EphemeralContainers feature.
hostIP	String	IP address of the host to which the pod is assigned. Empty if not yet scheduled.
initContainerStatuses	Array of <a href="#">io.k8s.api.core.v1.ContainerStatus</a> objects	The list has one entry per init container in the manifest. The most recent successful init container will have ready = true, the most recently started container will have startTime set. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-and-container-status</a>
message	String	A human readable message indicating details about why the pod is in this condition.

Parameter	Type	Description
nominatedNodeName	String	nominatedNodeName is set only when this pod preempts other pods on the node, but it cannot be scheduled right away as preemption victims receive their graceful termination periods. This field does not guarantee that the pod will be scheduled on this node. Scheduler may decide to place the pod elsewhere if other nodes become available sooner. Scheduler may also decide to give the resources on this node to a higher priority pod that is created after preemption. As a result, this field may be different than PodSpec.nodeName when the pod is scheduled.
phase	String	The phase of a Pod is a simple, high-level summary of where the Pod is in its lifecycle. The conditions array, the reason and message fields, and the individual container status arrays contain more detail about the pod's status. There are five possible phase values:  Pending: The pod has been accepted by the Kubernetes system, but one or more of the container images has not been created. This includes time before being scheduled as well as time spent downloading images over the network, which could take a while. Running: The pod has been bound to a node, and all of the containers have been created. At least one container is still running, or is in the process of starting or restarting. Succeeded: All containers in the pod have terminated in success, and will not be restarted. Failed: All containers in the pod have terminated, and at least one container has terminated in failure. The container either exited with non-zero status or was terminated by the system. Unknown: For some reason the state of the pod could not be obtained, typically due to an error in communicating with the host of the pod.  More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-phase</a>
podIP	String	IP address allocated to the pod. Routable at least within the cluster. Empty if not yet allocated.
podIPs	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/PodIP">io.k8s.api.core.v1.PodIP</a> objects	podIPs holds the IP addresses allocated to the pod. If this field is specified, the 0th entry must match the podIP field. Pods may be allocated at most 1 value for each of IPv4 and IPv6. This list is empty if no IPs have been allocated yet.

Parameter	Type	Description
qosClass	String	The Quality of Service (QOS) classification assigned to the pod based on resource requirements See PodQOSClass type for available QOS classes More info: <a href="https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md">https://git.k8s.io/community/contributors/design-proposals/node/resource-qos.md</a>
reason	String	A brief CamelCase message indicating details about why the pod is in this state. e.g. 'Evicted'
startTime	String	RFC 3339 date and time at which the object was acknowledged by the Kubelet. This is before the Kubelet pulled the container image(s) for the pod.

**Table 5-1577** io.k8s.api.core.v1.PodCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransition Time	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.
status	String	Status is the status of the condition. Can be True, False, Unknown. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>
type	String	Type is the type of the condition. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#pod-conditions</a>

**Table 5-1578** io.k8s.api.core.v1.ContainerStatus

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'.
image	String	The image the container is running. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imageID	String	ImageID of the container's image.
lastState	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's last termination condition.
name	String	This must be a DNS_LABEL. Each container in a pod must have a unique name. Cannot be updated.
ready	Boolean	Specifies whether the container has passed its readiness probe.
restartCount	Integer	The number of times the container has been restarted, currently based on the number of dead containers that have not yet been removed. Note that this is calculated from dead containers. But those containers are subject to garbage collection. This value will get capped at 5 by GC.
started	Boolean	Specifies whether the container has passed its startup probe. Initialized as false, becomes true after startupProbe is considered successful. Resets to false when the container is restarted, or if kubelet loses state temporarily. Is always true when no startupProbe is defined.
state	<a href="#">io.k8s.api.core.v1.ContainerState</a> object	Details about the container's current condition.

**Table 5-1579** io.k8s.api.core.v1.ContainerState

Parameter	Type	Description
running	<a href="#">io.k8s.api.core.v1.ContainerStateRunning</a> object	Details about a running container
terminated	<a href="#">io.k8s.api.core.v1.ContainerStateTerminated</a> object	Details about a terminated container
waiting	<a href="#">io.k8s.api.core.v1.ContainerStateWaiting</a> object	Details about a waiting container

**Table 5-1580** io.k8s.api.core.v1.ContainerStateRunning

Parameter	Type	Description
startedAt	String	Time at which the container was last (re-)started

**Table 5-1581** io.k8s.api.core.v1.ContainerStateTerminated

Parameter	Type	Description
containerID	String	Container's ID in the format 'docker://<container_id>'
exitCode	Integer	Exit status from the last termination of the container
finishedAt	String	Time at which the container last terminated
message	String	Message regarding the last termination of the container
reason	String	(brief) reason from the last termination of the container
signal	Integer	Signal from the last termination of the container
startedAt	String	Time at which previous execution of the container started

**Table 5-1582** io.k8s.api.core.v1.ContainerStateWaiting

Parameter	Type	Description
message	String	Message regarding why the container is not yet running.
reason	String	(brief) reason the container is not yet running.

**Table 5-1583** io.k8s.api.core.v1.PodIP

Parameter	Type	Description
ip	String	ip is an IP address (IPv4 or IPv6) assigned to the pod

**Table 5-1584** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "v1",
  "items": [ {
    "metadata": {
      "annotations": {
        "kubernetes.io/created-by" : "{\"kind\":\"SerializedReference\",\"apiVersion\":\"v1\",\"reference\":{\"kind\":\"ReplicationController\",\"namespace\":\"default\",\"name\":\"fdsfsd\",\"uid\":\"7539c329-57c4-11e7-afb7-fa163e218692\",\"apiVersion\":\"v1\",\"resourceVersion\":\"956153\"}}",
        "kubernetes.io/limit-ranger" : "LimitRanger plugin set: cpu request for container container01"
      },
      "creationTimestamp": "2017-06-23T03:31:35Z",
      "generateName": "fdsfsd-",
      "labels": {
        "cce/appgroup": "gfsad",
        "name": "fdsfsd"
      },
      "name": "fdsfsd-ddnft",
      "namespace": "default",
      "ownerReferences": [ {
        "apiVersion": "v1",
        "controller": true,
        "kind": "ReplicationController",
        "name": "fdsfsd",
        "uid": "7539c329-57c4-11e7-afb7-fa163e218692"
      } ],
      "resourceVersion": "1449034",
      "selfLink": "/api/v1/namespaces/default/pods/fdsfsd-ddnft",
      "uid": "753a45bc-57c4-11e7-afb7-fa163e218692"
    },
    "spec": {
      "containers": [ {
        "image": "10.154.52.159:443/test/apache-php:latest",
        "imagePullPolicy": "Always",
        "name": "container01",
        "ports": [ {
          "containerPort": 80,
          "protocol": "TCP"
        } ],
        "resources": {
          "requests": {
            "cpu": "100m"
          }
        }
      } ],
      "terminationMessagePath": "/dev/termination-log",
      "volumeMounts": [ {
        "mountPath": "/var/run/secrets/kubernetes.io/serviceaccount",
        "name": "default-token-863rh",
        "readOnly": true
      } ]
    },
    "dnsPolicy": "ClusterFirst",
    "imagePullSecrets": [ {
      "name": "myregistry"
    } ],
    "nodeName": "192.168.12.187",
    "restartPolicy": "Always",
    "securityContext": { },
    "serviceAccount": "default",
  } ]
}
```

```

"serviceAccountName" : "default",
"volumes" : [ {
  "name" : "default-token-863rh",
  "secret" : {
    "defaultMode" : 420,
    "secretName" : "default-token-863rh"
  }
} ]
},
"status" : {
  "conditions" : [ {
    "lastProbeTime" : null,
    "lastTransitionTime" : "2017-06-23T03:31:36Z",
    "status" : "True",
    "type" : "Initialized"
  }, {
    "lastProbeTime" : null,
    "lastTransitionTime" : "2017-06-28T06:34:51Z",
    "status" : "True",
    "type" : "Ready"
  }, {
    "lastProbeTime" : null,
    "lastTransitionTime" : "2017-06-23T03:31:35Z",
    "status" : "True",
    "type" : "PodScheduled"
  } ],
  "containerStatuses" : [ {
    "containerID" : "docker://f3daa802f753d123fe66b2cba2e917725702f8d446c17541822a68f9d2414c6d",
    "image" : "10.154.52.159:443/test/apache-php:latest",
    "imageID" : "docker://
sha256:2e233ad9329bd7f65572dd6acb1a03e8839c36abfdb1d1f9012d84d13cecf9fc",
    "lastState" : { },
    "name" : "container01",
    "ready" : true,
    "restartCount" : 0,
    "state" : {
      "running" : {
        "startedAt" : "2017-06-28T06:34:46Z"
      }
    }
  } ],
  "hostIP" : "192.168.12.187",
  "phase" : "Running",
  "podIP" : "172.16.56.4",
  "startTime" : "2017-06-23T03:31:36Z"
}
} ],
"kind" : "PodList",
"metadata" : {
  "resourceVersion" : "1550321",
  "selfLink" : "/api/v1/pods"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden



Status Code	Description
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.3 StorageClass

### 5.3.1 Querying All Storage Classes in the /apis/storage.k8s.io/v1 Version

#### Function

list or watch objects of kind StorageClass

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /apis/storage.k8s.io/v1/storageclasses

**Table 5-1585** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

Table 5-1586 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

Table 5-1587 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.storage.v1.StorageClass</a> objects	Items is the list of StorageClasses
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

**Table 5-1588** io.k8s.api.storage.v1.StorageClass

Parameter	Type	Description
allowVolumeExpansion	Boolean	AllowVolumeExpansion shows whether the storage class allow volume expand
allowedTopologies	Array of <a href="#">io.k8s.api.core.v1.TopologySelectorTerm</a> objects	Restrict the node topologies where volumes can be dynamically provisioned. Each volume plugin defines its own supported topology specifications. An empty TopologySelectorTerm list means there is no topology restriction. This field is only honored by servers that enable the VolumeScheduling feature.
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
mountOptions	Array of strings	Dynamically provisioned PersistentVolumes of this storage class are created with these mountOptions, e.g. ["ro", "soft"]. Not validated <ul style="list-style-type: none"> <li>mount of the PVs will simply fail if one is invalid.</li> </ul>
parameters	Map<String,String>	Parameters holds the parameters for the provisioner that should create volumes of this storage class.
provisioner	String	Provisioner indicates the type of the provisioner.
reclaimPolicy	String	Dynamically provisioned PersistentVolumes of this storage class are created with this reclaimPolicy. Defaults to Delete.

Parameter	Type	Description
volumeBindingMode	String	VolumeBindingMode indicates how PersistentVolumeClaims should be provisioned and bound. When unset, VolumeBindingImmediate is used. This field is only honored by servers that enable the VolumeScheduling feature.

**Table 5-1589** io.k8s.api.core.v1.TopologySelectorTerm

Parameter	Type	Description
matchLabelExpressions	Array of <a href="#">io.k8s.api.core.v1.TopologySelectorLabelRequirement</a> objects	A list of topology selector requirements by labels.

**Table 5-1590** io.k8s.api.core.v1.TopologySelectorLabelRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
values	Array of strings	An array of string values. One value must match the label to be selected. Each entry in Values is ORed.

**Table 5-1591** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.



Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1592** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1593** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1594** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
[ {
  "allowVolumeExpansion" : false,
  "metadata" : {
    "creationTimestamp" : "2022-07-26T04:58:34Z",
    "name" : "csi-disk-sas",
    "resourceVersion" : "289546",
    "selfLink" : "/apis/storage.k8s.io/v1/storageclasses/csi-disk-sas",
    "uid" : "f47fe78e-1677-4ac4-b02c-109cee63f34a"
  },
  "parameters" : {
    "csi.storage.k8s.io/csi-driver-name" : "disk.csi.everest.io",
    "csi.storage.k8s.io/fstype" : "ext4",
    "everest.io/disk-volume-type" : "SAS",
    "everest.io/passthrough" : "true"
  },
  "provisioner" : "everest-csi-provisioner",
  "reclaimPolicy" : "Delete",
  "volumeBindingMode" : "Immediate"
}, {
  "allowVolumeExpansion" : false,
  "metadata" : {
    "creationTimestamp" : "2022-07-26T04:58:34Z",
    "name" : "csi-disk-sata",
    "resourceVersion" : "289547",
    "selfLink" : "/apis/storage.k8s.io/v1/storageclasses/csi-disk-sata",
    "uid" : "3df529ff-5300-4bd8-a292-34ed5ddd80cd"
  },
  "parameters" : {
    "csi.storage.k8s.io/csi-driver-name" : "disk.csi.everest.io",
    "csi.storage.k8s.io/fstype" : "ext4",
    "everest.io/disk-volume-type" : "SATA",
    "everest.io/passthrough" : "true"
  },
  "provisioner" : "everest-csi-provisioner",
  "reclaimPolicy" : "Delete",
  "volumeBindingMode" : "Immediate"
} ]
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed

Status Code	Description
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.3.2 Querying a Specified Storage Class

### Function

read the specified StorageClass

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/storage.k8s.io/v1/storageclasses/{name}

**Table 5-1595** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the StorageClass

**Table 5-1596** Query Parameters

Parameter	Mandatory	Type	Description
exact	No	Boolean	Should the export be exact. Exact export maintains cluster-specific fields like 'Namespace'. Deprecated. Planned for removal in 1.18.



Parameter	Mandatory	Type	Description
export	No	Boolean	Should this value be exported. Export strips fields that a user can not specify. Deprecated. Planned for removal in 1.18.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-1597** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

**Status code: 200**

**Table 5-1598** Response body parameters

Parameter	Type	Description
allowVolumeExpansion	Boolean	AllowVolumeExpansion shows whether the storage class allow volume expand
allowedTopologies	Array of <a href="https://kubernetes.io/api-reference/v1.27/objects/TopologySelectorTerm">io.k8s.api.core.v1.TopologySelectorTerm</a> objects	Restrict the node topologies where volumes can be dynamically provisioned. Each volume plugin defines its own supported topology specifications. An empty TopologySelectorTerm list means there is no topology restriction. This field is only honored by servers that enable the VolumeScheduling feature.
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
mountOptions	Array of strings	Dynamically provisioned PersistentVolumes of this storage class are created with these mountOptions, e.g. ["ro", "soft"]. Not validated <ul style="list-style-type: none"> <li>mount of the PVs will simply fail if one is invalid.</li> </ul>
parameters	Map<String,String>	Parameters holds the parameters for the provisioner that should create volumes of this storage class.
provisioner	String	Provisioner indicates the type of the provisioner.
reclaimPolicy	String	Dynamically provisioned PersistentVolumes of this storage class are created with this reclaimPolicy. Defaults to Delete.
volumeBindingMode	String	VolumeBindingMode indicates how PersistentVolumeClaims should be provisioned and bound. When unset, VolumeBindingImmediate is used. This field is only honored by servers that enable the VolumeScheduling feature.

**Table 5-1599** io.k8s.api.core.v1.TopologySelectorTerm

Parameter	Type	Description
matchLabelExpressions	Array of <a href="#">io.k8s.api.core.v1.TopologySelectorLabelRequirement</a> objects	A list of topology selector requirements by labels.

**Table 5-1600** io.k8s.api.core.v1.TopologySelectorLabelRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
values	Array of strings	An array of string values. One value must match the label to be selected. Each entry in Values is ORed.

**Table 5-1601** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-1602** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1603** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "allowVolumeExpansion" : false,
```



```

"metadata": {
  "creationTimestamp": "2022-07-26T04:58:34Z",
  "name": "storage-test",
  "resourceVersion": "289547",
  "selfLink": "/apis/storage.k8s.io/v1/storageclasses/storage-test",
  "uid": "3df529ff-5300-4bd8-a292-34ed5ddd80cd"
},
"parameters": {
  "csi.storage.k8s.io/csi-driver-name": "disk.csi.everest.io",
  "csi.storage.k8s.io/fstype": "ext4",
  "everest.io/disk-volume-type": "SATA",
  "everest.io/passthrough": "true"
},
"provisioner": "everest-csi-provisioner",
"reclaimPolicy": "Delete",
"volumeBindingMode": "Immediate"
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.4 Service

### 5.4.1 Querying Services in a Namespace

#### Function

This API is used to query the details about all Services in a specified namespace.

## Calling Method

For details, see [Calling APIs](#).

## URI

GET /api/v1/namespaces/{namespace}/services

**Table 5-1604** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-1605** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-1606** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-1607** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.core.v1.Service</a> objects	List of services
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

**Table 5-1608** io.k8s.api.core.v1.Service

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.ServiceSpec</a> object	Spec defines the behavior of a service. <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.ServiceStatus</a> object	Most recently observed status of the service. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1609** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.



Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-1610** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1611** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1612** io.k8s.api.core.v1.ServiceSpec

Parameter	Type	Description
clusterIP	String	clusterIP is the IP address of the service and is usually assigned randomly by the master. If an address is specified manually and is not in use by others, it will be allocated to the service; otherwise, creation of the service will fail. This field can not be changed through updates. Valid values are "None", empty string (""), or a valid IP address. "None" can be specified for headless services when proxying is not required. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
externalIPs	Array of strings	externalIPs is a list of IP addresses for which nodes in the cluster will also accept traffic for this service. These IPs are not managed by Kubernetes. The user is responsible for ensuring that traffic arrives at a node with this IP. A common example is external load-balancers that are not part of the Kubernetes system.
externalName	String	externalName is the external reference that kubedns or equivalent will return as a CNAME record for this service. No proxying will be involved. Must be a valid RFC-1123 hostname ( <a href="https://tools.ietf.org/html/rfc1123">https://tools.ietf.org/html/rfc1123</a> ) and requires Type to be ExternalName.
externalTrafficPolicy	String	externalTrafficPolicy denotes if this Service desires to route external traffic to node-local or cluster-wide endpoints. "Local" preserves the client source IP and avoids a second hop for LoadBalancer and Nodeport type services, but risks potentially imbalanced traffic spreading. "Cluster" obscures the client source IP and may cause a second hop to another node, but should have good overall load-spreading.
healthCheckNodePort	Integer	healthCheckNodePort specifies the healthcheck nodePort for the service. If not specified, HealthCheckNodePort is created by the service api backend with the allocated nodePort. Will use user-specified nodePort value if specified by the client. Only effects when Type is set to LoadBalancer and ExternalTrafficPolicy is set to Local.

Parameter	Type	Description
ipFamily	String	ipFamily specifies whether this Service has a preference for a particular IP family (e.g. IPv4 vs. IPv6) when the IPv6DualStack feature gate is enabled. In a dual-stack cluster, you can specify ipFamily when creating a ClusterIP Service to determine whether the controller will allocate an IPv4 or IPv6 IP for it, and you can specify ipFamily when creating a headless Service to determine whether it will have IPv4 or IPv6 Endpoints. In either case, if you do not specify an ipFamily explicitly, it will default to the cluster's primary IP family. This field is part of an alpha feature, and you should not make any assumptions about its semantics other than those described above. In particular, you should not assume that it can (or cannot) be changed after creation time; that it can only have the values "IPv4" and "IPv6"; or that its current value on a given Service correctly reflects the current state of that Service. (For ClusterIP Services, look at clusterIP to see if the Service is IPv4 or IPv6. For headless Services, look at the endpoints, which may be dual-stack in the future. For ExternalName Services, ipFamily has no meaning, but it may be set to an irrelevant value anyway.)
loadBalancerIP	String	Only applies to Service Type: LoadBalancer. LoadBalancer will get created with the IP specified in this field. This feature depends on whether the underlying cloud-provider supports specifying the loadBalancerIP when a load balancer is created. This field will be ignored if the cloud-provider does not support the feature.
loadBalancerSourceRanges	Array of strings	If specified and supported by the platform, this will restrict traffic through the cloud-provider load-balancer will be restricted to the specified client IPs. This field will be ignored if the cloud-provider does not support the feature." More info: <a href="https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/">https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/</a>
ports	Array of <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">io.k8s.api.core.v1.ServicePort</a> objects	The list of ports that are exposed by this service. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>

Parameter	Type	Description
publishNotReadyAddresses	Boolean	publishNotReadyAddresses indicates that any agent which deals with endpoints for this Service should disregard any indications of ready/not-ready. The primary use case for setting this field is for a StatefulSet's Headless Service to propagate SRV DNS records for its Pods for the purpose of peer discovery. The Kubernetes controllers that generate Endpoints and EndpointSlice resources for Services interpret this to mean that all endpoints are considered "ready" even if the Pods themselves are not. Agents which consume only Kubernetes generated endpoints through the Endpoints or EndpointSlice resources can safely assume this behavior.
selector	Map<String,String>	Route service traffic to pods with label keys and values matching this selector. If empty or not present, the service is assumed to have an external process managing its endpoints, which Kubernetes will not modify. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/">https://kubernetes.io/docs/concepts/services-networking/service/</a>
sessionAffinity	String	Supports "ClientIP" and "None". Used to maintain session affinity. Enable client IP based session affinity. Must be ClientIP or None. Defaults to None. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
sessionAffinityConfig	<a href="#">io.k8s.api.core.v1.SessionAffinityConfig</a> object	sessionAffinityConfig contains the configurations of session affinity.



Parameter	Type	Description
topologyKeys	Array of strings	topologyKeys is a preference-order list of topology keys which implementations of services should use to preferentially sort endpoints when accessing this Service, it can not be used at the same time as externalTrafficPolicy=Local. Topology keys must be valid label keys and at most 16 keys may be specified. Endpoints are chosen based on the first topology key with available backends. If this field is specified and all entries have no backends that match the topology of the client, the service has no backends for that client and connections should fail. The special value "*" may be used to mean "any topology". This catch-all value, if used, only makes sense as the last value in the list. If this is not specified or empty, no topology constraints will be applied.
type	String	type determines how the Service is exposed. Defaults to ClusterIP. Valid options are ExternalName, ClusterIP, NodePort, and LoadBalancer. "ExternalName" maps to the specified externalName. "ClusterIP" allocates a cluster-internal IP address for load-balancing to endpoints. Endpoints are determined by the selector or if that is not specified, by manual construction of an Endpoints object. If clusterIP is "None", no virtual IP is allocated and the endpoints are published as a set of endpoints rather than a stable IP. "NodePort" builds on ClusterIP and allocates a port on every node which routes to the clusterIP. "LoadBalancer" builds on NodePort and creates an external load-balancer (if supported in the current cloud) which routes to the clusterIP. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types">https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types</a>

**Table 5-1613** io.k8s.api.core.v1.ServicePort

Parameter	Type	Description
appProtocol	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Unprefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as mycompany.com/my-custom-protocol. This is a beta field that is guarded by the ServiceAppProtocol feature gate and enabled by default.
name	String	The name of this port within the service. This must be a DNS_LABEL. All ports within a ServiceSpec must have unique names. When considering the endpoints for a Service, this must match the 'name' field in the EndpointPort. Optional if only one ServicePort is defined on this service.
nodePort	Integer	The port on each node on which this service is exposed when type=NodePort or LoadBalancer. Usually assigned by the system. If specified, it will be allocated to the service if unused or else creation of the service will fail. Default is to auto-allocate a port if the ServiceType of this Service requires one. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport">https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport</a>
port	Integer	The port that will be exposed by this service.
protocol	String	The IP protocol for this port. Supports "TCP", "UDP", and "SCTP". Default is TCP.
targetPort	String	Number or name of the port to access on the pods targeted by the service. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME. If this is a string, it will be looked up as a named port in the target Pod's container ports. If this is not specified, the value of the 'port' field is used (an identity map). This field is ignored for services with clusterIP=None, and should be omitted or set equal to the 'port' field. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service">https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service</a>

**Table 5-1614** io.k8s.api.core.v1.SessionAffinityConfig

Parameter	Type	Description
clientIP	<a href="#">io.k8s.api.core.v1.ClientIPConfig</a> object	clientIP contains the configurations of Client IP based session affinity.

**Table 5-1615** io.k8s.api.core.v1.ClientIPConfig

Parameter	Type	Description
timeoutSeconds	Integer	timeoutSeconds specifies the seconds of ClientIP type session sticky time. The value must be >0 && <=86400(for 1 day) if ServiceAffinity == "ClientIP". Default value is 10800(for 3 hours).

**Table 5-1616** io.k8s.api.core.v1.ServiceStatus

Parameter	Type	Description
loadBalancer	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer, if one is present.

**Table 5-1617** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Type	Description
ingress	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-1618** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Type	Description
hostname	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)

Parameter	Type	Description
ip	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

**Table 5-1619** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "v1",
  "items": [ {
    "metadata": {
      "creationTimestamp": "2018-09-03T11:20:56Z",
      "labels": {
        "addonmanager.kubernetes.io/mode": "Reconcile",
        "app": "kube-dns",
        "kubernetes.io/cluster-service": "true",
        "kubernetes.io/name": "KubeDNS"
      },
      "name": "kube-dns",
      "namespace": "namespace-test",
      "resourceVersion": "5016792",
      "selfLink": "/api/v1/namespaces/namespace-test/services/kube-dns",
      "uid": "6d356f18-af6b-11e8-b6ef-f898ef6c78b4"
    },
    "spec": {
      "clusterIP": "10.247.189.43",
      "ports": [ {
        "name": "dns",
        "port": 53,
        "protocol": "UDP",
        "targetPort": 5353
      }, {
        "name": "dns-tcp",
        "port": 53,
        "protocol": "TCP",
        "targetPort": 5353
      } ],
    }
  } ],
}
```

```
"selector" : {
  "app" : "kube-dns"
},
"sessionAffinity" : "None",
"type" : "ClusterIP"
},
"status" : {
  "loadBalancer" : {}
}
}, {
"metadata" : {
  "creationTimestamp" : "2018-09-04T00:45:36Z",
  "labels" : {
    "app" : "redis"
  },
  "name" : "redis",
  "namespace" : "namespace-test",
  "resourceVersion" : "5146412",
  "selfLink" : "/api/v1/namespaces/namespace-test/services/redis",
  "uid" : "d6a1ce79-afdb-11e8-b6ef-f898ef6c78b4"
},
"spec" : {
  "clusterIP" : "10.247.212.210",
  "ports" : [ {
    "name" : "service0",
    "port" : 8080,
    "protocol" : "TCP",
    "targetPort" : 80
  } ],
  "selector" : {
    "app" : "redis"
  },
  "sessionAffinity" : "None",
  "type" : "ClusterIP"
},
"status" : {
  "loadBalancer" : {}
}
} ],
"kind" : "ServiceList",
"metadata" : {
  "resourceVersion" : "5147871",
  "selfLink" : "/api/v1/namespaces/namespace-test/services"
}
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict

Status Code	Description
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.4.2 Creating a Service

### Function

This API is used to create a Service.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /api/v1/namespaces/{namespace}/services

**Table 5-1620** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-1621** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

Parameter	Mandatory	Type	Description
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-1622** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-1623** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>



Parameter	Mandatory	Type	Description
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.core.v1.ServiceSpec</a> object	Spec defines the behavior of a service. <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	No	<a href="#">io.k8s.api.core.v1.ServiceStatus</a> object	Most recently observed status of the service. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1624** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Mandatory	Type	Description
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-1625** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'



**Table 5-1626** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1627** io.k8s.api.core.v1.ServiceSpec

Parameter	Mandatory	Type	Description
clusterIP	No	String	clusterIP is the IP address of the service and is usually assigned randomly by the master. If an address is specified manually and is not in use by others, it will be allocated to the service; otherwise, creation of the service will fail. This field can not be changed through updates. Valid values are "None", empty string (""), or a valid IP address. "None" can be specified for headless services when proxying is not required. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
externalIPs	No	Array of strings	externalIPs is a list of IP addresses for which nodes in the cluster will also accept traffic for this service. These IPs are not managed by Kubernetes. The user is responsible for ensuring that traffic arrives at a node with this IP. A common example is external load-balancers that are not part of the Kubernetes system.
externalName	No	String	externalName is the external reference that kubedns or equivalent will return as a CNAME record for this service. No proxying will be involved. Must be a valid RFC-1123 hostname ( <a href="https://tools.ietf.org/html/rfc1123">https://tools.ietf.org/html/rfc1123</a> ) and requires Type to be ExternalName.

Parameter	Mandatory	Type	Description
externalTrafficPolicy	No	String	externalTrafficPolicy denotes if this Service desires to route external traffic to node-local or cluster-wide endpoints. "Local" preserves the client source IP and avoids a second hop for LoadBalancer and Nodeport type services, but risks potentially imbalanced traffic spreading. "Cluster" obscures the client source IP and may cause a second hop to another node, but should have good overall load-spreading.
healthCheckNodePort	No	Integer	healthCheckNodePort specifies the healthcheck nodePort for the service. If not specified, HealthCheckNodePort is created by the service api backend with the allocated nodePort. Will use user-specified nodePort value if specified by the client. Only effects when Type is set to LoadBalancer and ExternalTrafficPolicy is set to Local.

Parameter	Mandatory	Type	Description
ipFamily	No	String	<p>ipFamily specifies whether this Service has a preference for a particular IP family (e.g. IPv4 vs. IPv6) when the IPv6DualStack feature gate is enabled. In a dual-stack cluster, you can specify ipFamily when creating a ClusterIP Service to determine whether the controller will allocate an IPv4 or IPv6 IP for it, and you can specify ipFamily when creating a headless Service to determine whether it will have IPv4 or IPv6 Endpoints. In either case, if you do not specify an ipFamily explicitly, it will default to the cluster's primary IP family. This field is part of an alpha feature, and you should not make any assumptions about its semantics other than those described above. In particular, you should not assume that it can (or cannot) be changed after creation time; that it can only have the values "IPv4" and "IPv6"; or that its current value on a given Service correctly reflects the current state of that Service. (For ClusterIP Services, look at clusterIP to see if the Service is IPv4 or IPv6. For headless Services, look at the endpoints, which may be dual-stack in the future. For ExternalName Services, ipFamily has no meaning, but it may be set to an irrelevant value anyway.)</p>

Parameter	Mandatory	Type	Description
loadBalancerIP	No	String	Only applies to Service Type: LoadBalancer. LoadBalancer will get created with the IP specified in this field. This feature depends on whether the underlying cloud-provider supports specifying the loadBalancerIP when a load balancer is created. This field will be ignored if the cloud-provider does not support the feature.
loadBalancerSourceRanges	No	Array of strings	If specified and supported by the platform, this will restrict traffic through the cloud-provider load-balancer will be restricted to the specified client IPs. This field will be ignored if the cloud-provider does not support the feature." More info: <a href="https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/">https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/</a>
ports	No	Array of <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">io.k8s.api.core.v1.ServicePort</a> objects	The list of ports that are exposed by this service. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>

Parameter	Mandatory	Type	Description
publishNotReadyAddresses	No	Boolean	publishNotReadyAddresses indicates that any agent which deals with endpoints for this Service should disregard any indications of ready/not-ready. The primary use case for setting this field is for a StatefulSet's Headless Service to propagate SRV DNS records for its Pods for the purpose of peer discovery. The Kubernetes controllers that generate Endpoints and EndpointSlice resources for Services interpret this to mean that all endpoints are considered "ready" even if the Pods themselves are not. Agents which consume only Kubernetes generated endpoints through the Endpoints or EndpointSlice resources can safely assume this behavior.
selector	No	Map<String,String>	Route service traffic to pods with label keys and values matching this selector. If empty or not present, the service is assumed to have an external process managing its endpoints, which Kubernetes will not modify. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/">https://kubernetes.io/docs/concepts/services-networking/service/</a>
sessionAffinity	No	String	Supports "ClientIP" and "None". Used to maintain session affinity. Enable client IP based session affinity. Must be ClientIP or None. Defaults to None. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>

Parameter	Mandatory	Type	Description
sessionAffinityConfig	No	<a href="#">io.k8s.api.core.v1.SessionAffinityConfig</a> object	sessionAffinityConfig contains the configurations of session affinity.
topologyKeys	No	Array of strings	topologyKeys is a preference-order list of topology keys which implementations of services should use to preferentially sort endpoints when accessing this Service, it can not be used at the same time as externalTrafficPolicy=Local. Topology keys must be valid label keys and at most 16 keys may be specified. Endpoints are chosen based on the first topology key with available backends. If this field is specified and all entries have no backends that match the topology of the client, the service has no backends for that client and connections should fail. The special value "*" may be used to mean "any topology". This catch-all value, if used, only makes sense as the last value in the list. If this is not specified or empty, no topology constraints will be applied.

Parameter	Mandatory	Type	Description
type	No	String	<p>type determines how the Service is exposed. Defaults to ClusterIP. Valid options are ExternalName, ClusterIP, NodePort, and LoadBalancer. "ExternalName" maps to the specified externalName. "ClusterIP" allocates a cluster-internal IP address for load-balancing to endpoints. Endpoints are determined by the selector or if that is not specified, by manual construction of an Endpoints object. If clusterIP is "None", no virtual IP is allocated and the endpoints are published as a set of endpoints rather than a stable IP. "NodePort" builds on ClusterIP and allocates a port on every node which routes to the clusterIP. "LoadBalancer" builds on NodePort and creates an external load-balancer (if supported in the current cloud) which routes to the clusterIP. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types">https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types</a></p>



**Table 5-1628** io.k8s.api.core.v1.ServicePort

Parameter	Mandatory	Type	Description
appProtocol	No	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Un-prefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as <code>mycompany.com/my-custom-protocol</code> . This is a beta field that is guarded by the <code>ServiceAppProtocol</code> feature gate and enabled by default.
name	No	String	The name of this port within the service. This must be a <code>DNS_LABEL</code> . All ports within a <code>ServiceSpec</code> must have unique names. When considering the endpoints for a <code>Service</code> , this must match the 'name' field in the <code>EndpointPort</code> . Optional if only one <code>ServicePort</code> is defined on this service.
nodePort	No	Integer	The port on each node on which this service is exposed when <code>type=NodePort</code> or <code>LoadBalancer</code> . Usually assigned by the system. If specified, it will be allocated to the service if unused or else creation of the service will fail. Default is to auto-allocate a port if the <code>ServiceType</code> of this <code>Service</code> requires one. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport">https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport</a>
port	Yes	Integer	The port that will be exposed by this service.
protocol	No	String	The IP protocol for this port. Supports "TCP", "UDP", and "SCTP". Default is TCP.

Parameter	Mandatory	Type	Description
targetPort	No	String	Number or name of the port to access on the pods targeted by the service. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME. If this is a string, it will be looked up as a named port in the target Pod's container ports. If this is not specified, the value of the 'port' field is used (an identity map). This field is ignored for services with clusterIP=None, and should be omitted or set equal to the 'port' field. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service">https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service</a>

**Table 5-1629** io.k8s.api.core.v1.SessionAffinityConfig

Parameter	Mandatory	Type	Description
clientIP	No	<a href="#">io.k8s.api.core.v1.ClientIPConfig</a> object	clientIP contains the configurations of Client IP based session affinity.

**Table 5-1630** io.k8s.api.core.v1.ClientIPConfig

Parameter	Mandatory	Type	Description
timeoutSeconds	No	Integer	timeoutSeconds specifies the seconds of ClientIP type session sticky time. The value must be >0 && <=86400(for 1 day) if ServiceAffinity == "ClientIP". Default value is 10800(for 3 hours).

**Table 5-1631** io.k8s.api.core.v1.ServiceStatus

Parameter	Mandatory	Type	Description
loadBalancer	No	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer, if one is present.

**Table 5-1632** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Mandatory	Type	Description
ingress	No	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-1633** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Mandatory	Type	Description
hostname	No	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)
ip	No	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

## Response Parameters

Status code: 200

**Table 5-1634** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.ServicesSpec</a> object	Spec defines the behavior of a service. <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.ServicesStatus</a> object	Most recently observed status of the service. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1635** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1636** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.



Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1637** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1638** io.k8s.api.core.v1.ServiceSpec

Parameter	Type	Description
clusterIP	String	clusterIP is the IP address of the service and is usually assigned randomly by the master. If an address is specified manually and is not in use by others, it will be allocated to the service; otherwise, creation of the service will fail. This field can not be changed through updates. Valid values are "None", empty string (""), or a valid IP address. "None" can be specified for headless services when proxying is not required. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
externalIPs	Array of strings	externalIPs is a list of IP addresses for which nodes in the cluster will also accept traffic for this service. These IPs are not managed by Kubernetes. The user is responsible for ensuring that traffic arrives at a node with this IP. A common example is external load-balancers that are not part of the Kubernetes system.
externalName	String	externalName is the external reference that kubedns or equivalent will return as a CNAME record for this service. No proxying will be involved. Must be a valid RFC-1123 hostname ( <a href="https://tools.ietf.org/html/rfc1123">https://tools.ietf.org/html/rfc1123</a> ) and requires Type to be ExternalName.
externalTrafficPolicy	String	externalTrafficPolicy denotes if this Service desires to route external traffic to node-local or cluster-wide endpoints. "Local" preserves the client source IP and avoids a second hop for LoadBalancer and Nodeport type services, but risks potentially imbalanced traffic spreading. "Cluster" obscures the client source IP and may cause a second hop to another node, but should have good overall load-spreading.
healthCheckNodePort	Integer	healthCheckNodePort specifies the healthcheck nodePort for the service. If not specified, HealthCheckNodePort is created by the service api backend with the allocated nodePort. Will use user-specified nodePort value if specified by the client. Only effects when Type is set to LoadBalancer and ExternalTrafficPolicy is set to Local.

Parameter	Type	Description
ipFamily	String	ipFamily specifies whether this Service has a preference for a particular IP family (e.g. IPv4 vs. IPv6) when the IPv6DualStack feature gate is enabled. In a dual-stack cluster, you can specify ipFamily when creating a ClusterIP Service to determine whether the controller will allocate an IPv4 or IPv6 IP for it, and you can specify ipFamily when creating a headless Service to determine whether it will have IPv4 or IPv6 Endpoints. In either case, if you do not specify an ipFamily explicitly, it will default to the cluster's primary IP family. This field is part of an alpha feature, and you should not make any assumptions about its semantics other than those described above. In particular, you should not assume that it can (or cannot) be changed after creation time; that it can only have the values "IPv4" and "IPv6"; or that its current value on a given Service correctly reflects the current state of that Service. (For ClusterIP Services, look at clusterIP to see if the Service is IPv4 or IPv6. For headless Services, look at the endpoints, which may be dual-stack in the future. For ExternalName Services, ipFamily has no meaning, but it may be set to an irrelevant value anyway.)
loadBalancerIP	String	Only applies to Service Type: LoadBalancer. LoadBalancer will get created with the IP specified in this field. This feature depends on whether the underlying cloud-provider supports specifying the loadBalancerIP when a load balancer is created. This field will be ignored if the cloud-provider does not support the feature.
loadBalancerSourceRanges	Array of strings	If specified and supported by the platform, this will restrict traffic through the cloud-provider load-balancer will be restricted to the specified client IPs. This field will be ignored if the cloud-provider does not support the feature." More info: <a href="https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/">https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/</a>
ports	Array of <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">io.k8s.api.core.v1.ServicePort</a> objects	The list of ports that are exposed by this service. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>

Parameter	Type	Description
publishNotReadyAddresses	Boolean	publishNotReadyAddresses indicates that any agent which deals with endpoints for this Service should disregard any indications of ready/not-ready. The primary use case for setting this field is for a StatefulSet's Headless Service to propagate SRV DNS records for its Pods for the purpose of peer discovery. The Kubernetes controllers that generate Endpoints and EndpointSlice resources for Services interpret this to mean that all endpoints are considered "ready" even if the Pods themselves are not. Agents which consume only Kubernetes generated endpoints through the Endpoints or EndpointSlice resources can safely assume this behavior.
selector	Map<String,String>	Route service traffic to pods with label keys and values matching this selector. If empty or not present, the service is assumed to have an external process managing its endpoints, which Kubernetes will not modify. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/">https://kubernetes.io/docs/concepts/services-networking/service/</a>
sessionAffinity	String	Supports "ClientIP" and "None". Used to maintain session affinity. Enable client IP based session affinity. Must be ClientIP or None. Defaults to None. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
sessionAffinityConfig	<a href="#">io.k8s.api.core.v1.SessionAffinityConfig</a> object	sessionAffinityConfig contains the configurations of session affinity.

Parameter	Type	Description
topologyKeys	Array of strings	topologyKeys is a preference-order list of topology keys which implementations of services should use to preferentially sort endpoints when accessing this Service, it can not be used at the same time as externalTrafficPolicy=Local. Topology keys must be valid label keys and at most 16 keys may be specified. Endpoints are chosen based on the first topology key with available backends. If this field is specified and all entries have no backends that match the topology of the client, the service has no backends for that client and connections should fail. The special value "*" may be used to mean "any topology". This catch-all value, if used, only makes sense as the last value in the list. If this is not specified or empty, no topology constraints will be applied.
type	String	type determines how the Service is exposed. Defaults to ClusterIP. Valid options are ExternalName, ClusterIP, NodePort, and LoadBalancer. "ExternalName" maps to the specified externalName. "ClusterIP" allocates a cluster-internal IP address for load-balancing to endpoints. Endpoints are determined by the selector or if that is not specified, by manual construction of an Endpoints object. If clusterIP is "None", no virtual IP is allocated and the endpoints are published as a set of endpoints rather than a stable IP. "NodePort" builds on ClusterIP and allocates a port on every node which routes to the clusterIP. "LoadBalancer" builds on NodePort and creates an external load-balancer (if supported in the current cloud) which routes to the clusterIP. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types">https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types</a>

**Table 5-1639** io.k8s.api.core.v1.ServicePort

Parameter	Type	Description
appProtocol	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Unprefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as mycompany.com/my-custom-protocol. This is a beta field that is guarded by the ServiceAppProtocol feature gate and enabled by default.
name	String	The name of this port within the service. This must be a DNS_LABEL. All ports within a ServiceSpec must have unique names. When considering the endpoints for a Service, this must match the 'name' field in the EndpointPort. Optional if only one ServicePort is defined on this service.
nodePort	Integer	The port on each node on which this service is exposed when type=NodePort or LoadBalancer. Usually assigned by the system. If specified, it will be allocated to the service if unused or else creation of the service will fail. Default is to auto-allocate a port if the ServiceType of this Service requires one. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport">https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport</a>
port	Integer	The port that will be exposed by this service.
protocol	String	The IP protocol for this port. Supports "TCP", "UDP", and "SCTP". Default is TCP.
targetPort	String	Number or name of the port to access on the pods targeted by the service. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME. If this is a string, it will be looked up as a named port in the target Pod's container ports. If this is not specified, the value of the 'port' field is used (an identity map). This field is ignored for services with clusterIP=None, and should be omitted or set equal to the 'port' field. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service">https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service</a>

**Table 5-1640** io.k8s.api.core.v1.SessionAffinityConfig

Parameter	Type	Description
clientIP	<a href="#">io.k8s.api.core.v1.ClientIPConfig</a> object	clientIP contains the configurations of Client IP based session affinity.

**Table 5-1641** io.k8s.api.core.v1.ClientIPConfig

Parameter	Type	Description
timeoutSeconds	Integer	timeoutSeconds specifies the seconds of ClientIP type session sticky time. The value must be >0 && <=86400(for 1 day) if ServiceAffinity == "ClientIP". Default value is 10800(for 3 hours).

**Table 5-1642** io.k8s.api.core.v1.ServiceStatus

Parameter	Type	Description
loadBalancer	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer, if one is present.

**Table 5-1643** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Type	Description
ingress	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-1644** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Type	Description
hostname	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)

Parameter	Type	Description
ip	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

**Status code: 201**

**Table 5-1645** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.ServiceSpec</a> object	Spec defines the behavior of a service. <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.ServiceStatus</a> object	Most recently observed status of the service. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>



**Table 5-1646** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1647** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1648** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1649** io.k8s.api.core.v1.ServiceSpec

Parameter	Type	Description
clusterIP	String	clusterIP is the IP address of the service and is usually assigned randomly by the master. If an address is specified manually and is not in use by others, it will be allocated to the service; otherwise, creation of the service will fail. This field can not be changed through updates. Valid values are "None", empty string (""), or a valid IP address. "None" can be specified for headless services when proxying is not required. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
externalIPs	Array of strings	externalIPs is a list of IP addresses for which nodes in the cluster will also accept traffic for this service. These IPs are not managed by Kubernetes. The user is responsible for ensuring that traffic arrives at a node with this IP. A common example is external load-balancers that are not part of the Kubernetes system.
externalName	String	externalName is the external reference that kubedns or equivalent will return as a CNAME record for this service. No proxying will be involved. Must be a valid RFC-1123 hostname ( <a href="https://tools.ietf.org/html/rfc1123">https://tools.ietf.org/html/rfc1123</a> ) and requires Type to be ExternalName.
externalTrafficPolicy	String	externalTrafficPolicy denotes if this Service desires to route external traffic to node-local or cluster-wide endpoints. "Local" preserves the client source IP and avoids a second hop for LoadBalancer and Nodeport type services, but risks potentially imbalanced traffic spreading. "Cluster" obscures the client source IP and may cause a second hop to another node, but should have good overall load-spreading.
healthCheckNodePort	Integer	healthCheckNodePort specifies the healthcheck nodePort for the service. If not specified, HealthCheckNodePort is created by the service api backend with the allocated nodePort. Will use user-specified nodePort value if specified by the client. Only effects when Type is set to LoadBalancer and ExternalTrafficPolicy is set to Local.

Parameter	Type	Description
ipFamily	String	ipFamily specifies whether this Service has a preference for a particular IP family (e.g. IPv4 vs. IPv6) when the IPv6DualStack feature gate is enabled. In a dual-stack cluster, you can specify ipFamily when creating a ClusterIP Service to determine whether the controller will allocate an IPv4 or IPv6 IP for it, and you can specify ipFamily when creating a headless Service to determine whether it will have IPv4 or IPv6 Endpoints. In either case, if you do not specify an ipFamily explicitly, it will default to the cluster's primary IP family. This field is part of an alpha feature, and you should not make any assumptions about its semantics other than those described above. In particular, you should not assume that it can (or cannot) be changed after creation time; that it can only have the values "IPv4" and "IPv6"; or that its current value on a given Service correctly reflects the current state of that Service. (For ClusterIP Services, look at clusterIP to see if the Service is IPv4 or IPv6. For headless Services, look at the endpoints, which may be dual-stack in the future. For ExternalName Services, ipFamily has no meaning, but it may be set to an irrelevant value anyway.)
loadBalancerIP	String	Only applies to Service Type: LoadBalancer. LoadBalancer will get created with the IP specified in this field. This feature depends on whether the underlying cloud-provider supports specifying the loadBalancerIP when a load balancer is created. This field will be ignored if the cloud-provider does not support the feature.
loadBalancerSourceRanges	Array of strings	If specified and supported by the platform, this will restrict traffic through the cloud-provider load-balancer will be restricted to the specified client IPs. This field will be ignored if the cloud-provider does not support the feature." More info: <a href="https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/">https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/</a>
ports	Array of <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">io.k8s.api.core.v1.ServicePort</a> objects	The list of ports that are exposed by this service. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>



Parameter	Type	Description
publishNotReadyAddresses	Boolean	publishNotReadyAddresses indicates that any agent which deals with endpoints for this Service should disregard any indications of ready/not-ready. The primary use case for setting this field is for a StatefulSet's Headless Service to propagate SRV DNS records for its Pods for the purpose of peer discovery. The Kubernetes controllers that generate Endpoints and EndpointSlice resources for Services interpret this to mean that all endpoints are considered "ready" even if the Pods themselves are not. Agents which consume only Kubernetes generated endpoints through the Endpoints or EndpointSlice resources can safely assume this behavior.
selector	Map<String,String>	Route service traffic to pods with label keys and values matching this selector. If empty or not present, the service is assumed to have an external process managing its endpoints, which Kubernetes will not modify. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/">https://kubernetes.io/docs/concepts/services-networking/service/</a>
sessionAffinity	String	Supports "ClientIP" and "None". Used to maintain session affinity. Enable client IP based session affinity. Must be ClientIP or None. Defaults to None. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
sessionAffinityConfig	<a href="#">io.k8s.api.core.v1.SessionAffinityConfig</a> object	sessionAffinityConfig contains the configurations of session affinity.

Parameter	Type	Description
topologyKeys	Array of strings	topologyKeys is a preference-order list of topology keys which implementations of services should use to preferentially sort endpoints when accessing this Service, it can not be used at the same time as externalTrafficPolicy=Local. Topology keys must be valid label keys and at most 16 keys may be specified. Endpoints are chosen based on the first topology key with available backends. If this field is specified and all entries have no backends that match the topology of the client, the service has no backends for that client and connections should fail. The special value "*" may be used to mean "any topology". This catch-all value, if used, only makes sense as the last value in the list. If this is not specified or empty, no topology constraints will be applied.
type	String	type determines how the Service is exposed. Defaults to ClusterIP. Valid options are ExternalName, ClusterIP, NodePort, and LoadBalancer. "ExternalName" maps to the specified externalName. "ClusterIP" allocates a cluster-internal IP address for load-balancing to endpoints. Endpoints are determined by the selector or if that is not specified, by manual construction of an Endpoints object. If clusterIP is "None", no virtual IP is allocated and the endpoints are published as a set of endpoints rather than a stable IP. "NodePort" builds on ClusterIP and allocates a port on every node which routes to the clusterIP. "LoadBalancer" builds on NodePort and creates an external load-balancer (if supported in the current cloud) which routes to the clusterIP. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types">https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types</a>

**Table 5-1650** io.k8s.api.core.v1.ServicePort

Parameter	Type	Description
appProtocol	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Unprefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as mycompany.com/my-custom-protocol. This is a beta field that is guarded by the ServiceAppProtocol feature gate and enabled by default.
name	String	The name of this port within the service. This must be a DNS_LABEL. All ports within a ServiceSpec must have unique names. When considering the endpoints for a Service, this must match the 'name' field in the EndpointPort. Optional if only one ServicePort is defined on this service.
nodePort	Integer	The port on each node on which this service is exposed when type=NodePort or LoadBalancer. Usually assigned by the system. If specified, it will be allocated to the service if unused or else creation of the service will fail. Default is to auto-allocate a port if the ServiceType of this Service requires one. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport">https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport</a>
port	Integer	The port that will be exposed by this service.
protocol	String	The IP protocol for this port. Supports "TCP", "UDP", and "SCTP". Default is TCP.
targetPort	String	Number or name of the port to access on the pods targeted by the service. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME. If this is a string, it will be looked up as a named port in the target Pod's container ports. If this is not specified, the value of the 'port' field is used (an identity map). This field is ignored for services with clusterIP=None, and should be omitted or set equal to the 'port' field. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service">https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service</a>

**Table 5-1651** io.k8s.api.core.v1.SessionAffinityConfig

Parameter	Type	Description
clientIP	<a href="#">io.k8s.api.core.v1.ClientIPConfig</a> object	clientIP contains the configurations of Client IP based session affinity.

**Table 5-1652** io.k8s.api.core.v1.ClientIPConfig

Parameter	Type	Description
timeoutSeconds	Integer	timeoutSeconds specifies the seconds of ClientIP type session sticky time. The value must be >0 && <=86400(for 1 day) if ServiceAffinity == "ClientIP". Default value is 10800(for 3 hours).

**Table 5-1653** io.k8s.api.core.v1.ServiceStatus

Parameter	Type	Description
loadBalancer	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer, if one is present.

**Table 5-1654** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Type	Description
ingress	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-1655** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Type	Description
hostname	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)

Parameter	Type	Description
ip	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

Status code: 202

Table 5-1656 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.ServiceSpec</a> object	Spec defines the behavior of a service. <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.ServiceStatus</a> object	Most recently observed status of the service. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1657** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>



Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-1658** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1659** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1660** io.k8s.api.core.v1.ServiceSpec

Parameter	Type	Description
clusterIP	String	clusterIP is the IP address of the service and is usually assigned randomly by the master. If an address is specified manually and is not in use by others, it will be allocated to the service; otherwise, creation of the service will fail. This field can not be changed through updates. Valid values are "None", empty string (""), or a valid IP address. "None" can be specified for headless services when proxying is not required. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
externalIPs	Array of strings	externalIPs is a list of IP addresses for which nodes in the cluster will also accept traffic for this service. These IPs are not managed by Kubernetes. The user is responsible for ensuring that traffic arrives at a node with this IP. A common example is external load-balancers that are not part of the Kubernetes system.
externalName	String	externalName is the external reference that kubedns or equivalent will return as a CNAME record for this service. No proxying will be involved. Must be a valid RFC-1123 hostname ( <a href="https://tools.ietf.org/html/rfc1123">https://tools.ietf.org/html/rfc1123</a> ) and requires Type to be ExternalName.
externalTrafficPolicy	String	externalTrafficPolicy denotes if this Service desires to route external traffic to node-local or cluster-wide endpoints. "Local" preserves the client source IP and avoids a second hop for LoadBalancer and Nodeport type services, but risks potentially imbalanced traffic spreading. "Cluster" obscures the client source IP and may cause a second hop to another node, but should have good overall load-spreading.
healthCheckNodePort	Integer	healthCheckNodePort specifies the healthcheck nodePort for the service. If not specified, HealthCheckNodePort is created by the service api backend with the allocated nodePort. Will use user-specified nodePort value if specified by the client. Only effects when Type is set to LoadBalancer and ExternalTrafficPolicy is set to Local.

Parameter	Type	Description
ipFamily	String	ipFamily specifies whether this Service has a preference for a particular IP family (e.g. IPv4 vs. IPv6) when the IPv6DualStack feature gate is enabled. In a dual-stack cluster, you can specify ipFamily when creating a ClusterIP Service to determine whether the controller will allocate an IPv4 or IPv6 IP for it, and you can specify ipFamily when creating a headless Service to determine whether it will have IPv4 or IPv6 Endpoints. In either case, if you do not specify an ipFamily explicitly, it will default to the cluster's primary IP family. This field is part of an alpha feature, and you should not make any assumptions about its semantics other than those described above. In particular, you should not assume that it can (or cannot) be changed after creation time; that it can only have the values "IPv4" and "IPv6"; or that its current value on a given Service correctly reflects the current state of that Service. (For ClusterIP Services, look at clusterIP to see if the Service is IPv4 or IPv6. For headless Services, look at the endpoints, which may be dual-stack in the future. For ExternalName Services, ipFamily has no meaning, but it may be set to an irrelevant value anyway.)
loadBalancerIP	String	Only applies to Service Type: LoadBalancer. LoadBalancer will get created with the IP specified in this field. This feature depends on whether the underlying cloud-provider supports specifying the loadBalancerIP when a load balancer is created. This field will be ignored if the cloud-provider does not support the feature.
loadBalancerSourceRanges	Array of strings	If specified and supported by the platform, this will restrict traffic through the cloud-provider load-balancer will be restricted to the specified client IPs. This field will be ignored if the cloud-provider does not support the feature." More info: <a href="https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/">https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/</a>
ports	Array of <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">io.k8s.api.core.v1.ServicePort</a> objects	The list of ports that are exposed by this service. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>

Parameter	Type	Description
publishNotReadyAddresses	Boolean	publishNotReadyAddresses indicates that any agent which deals with endpoints for this Service should disregard any indications of ready/not-ready. The primary use case for setting this field is for a StatefulSet's Headless Service to propagate SRV DNS records for its Pods for the purpose of peer discovery. The Kubernetes controllers that generate Endpoints and EndpointSlice resources for Services interpret this to mean that all endpoints are considered "ready" even if the Pods themselves are not. Agents which consume only Kubernetes generated endpoints through the Endpoints or EndpointSlice resources can safely assume this behavior.
selector	Map<String,String>	Route service traffic to pods with label keys and values matching this selector. If empty or not present, the service is assumed to have an external process managing its endpoints, which Kubernetes will not modify. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/">https://kubernetes.io/docs/concepts/services-networking/service/</a>
sessionAffinity	String	Supports "ClientIP" and "None". Used to maintain session affinity. Enable client IP based session affinity. Must be ClientIP or None. Defaults to None. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
sessionAffinityConfig	<a href="#">io.k8s.api.core.v1.SessionAffinityConfig</a> object	sessionAffinityConfig contains the configurations of session affinity.

Parameter	Type	Description
topologyKeys	Array of strings	topologyKeys is a preference-order list of topology keys which implementations of services should use to preferentially sort endpoints when accessing this Service, it can not be used at the same time as externalTrafficPolicy=Local. Topology keys must be valid label keys and at most 16 keys may be specified. Endpoints are chosen based on the first topology key with available backends. If this field is specified and all entries have no backends that match the topology of the client, the service has no backends for that client and connections should fail. The special value "*" may be used to mean "any topology". This catch-all value, if used, only makes sense as the last value in the list. If this is not specified or empty, no topology constraints will be applied.
type	String	type determines how the Service is exposed. Defaults to ClusterIP. Valid options are ExternalName, ClusterIP, NodePort, and LoadBalancer. "ExternalName" maps to the specified externalName. "ClusterIP" allocates a cluster-internal IP address for load-balancing to endpoints. Endpoints are determined by the selector or if that is not specified, by manual construction of an Endpoints object. If clusterIP is "None", no virtual IP is allocated and the endpoints are published as a set of endpoints rather than a stable IP. "NodePort" builds on ClusterIP and allocates a port on every node which routes to the clusterIP. "LoadBalancer" builds on NodePort and creates an external load-balancer (if supported in the current cloud) which routes to the clusterIP. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types">https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types</a>

**Table 5-1661** io.k8s.api.core.v1.ServicePort

Parameter	Type	Description
appProtocol	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Unprefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as mycompany.com/my-custom-protocol. This is a beta field that is guarded by the ServiceAppProtocol feature gate and enabled by default.
name	String	The name of this port within the service. This must be a DNS_LABEL. All ports within a ServiceSpec must have unique names. When considering the endpoints for a Service, this must match the 'name' field in the EndpointPort. Optional if only one ServicePort is defined on this service.
nodePort	Integer	The port on each node on which this service is exposed when type=NodePort or LoadBalancer. Usually assigned by the system. If specified, it will be allocated to the service if unused or else creation of the service will fail. Default is to auto-allocate a port if the ServiceType of this Service requires one. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport">https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport</a>
port	Integer	The port that will be exposed by this service.
protocol	String	The IP protocol for this port. Supports "TCP", "UDP", and "SCTP". Default is TCP.
targetPort	String	Number or name of the port to access on the pods targeted by the service. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME. If this is a string, it will be looked up as a named port in the target Pod's container ports. If this is not specified, the value of the 'port' field is used (an identity map). This field is ignored for services with clusterIP=None, and should be omitted or set equal to the 'port' field. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service">https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service</a>



**Table 5-1662** io.k8s.api.core.v1.SessionAffinityConfig

Parameter	Type	Description
clientIP	<a href="#">io.k8s.api.core.v1.ClientIPConfig</a> object	clientIP contains the configurations of Client IP based session affinity.

**Table 5-1663** io.k8s.api.core.v1.ClientIPConfig

Parameter	Type	Description
timeoutSeconds	Integer	timeoutSeconds specifies the seconds of ClientIP type session sticky time. The value must be >0 && <=86400(for 1 day) if ServiceAffinity == "ClientIP". Default value is 10800(for 3 hours).

**Table 5-1664** io.k8s.api.core.v1.ServiceStatus

Parameter	Type	Description
loadBalancer	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer, if one is present.

**Table 5-1665** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Type	Description
ingress	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-1666** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Type	Description
hostname	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)

Parameter	Type	Description
ip	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

## Example Requests

- Creating a service of the ClusterIP type, with the public port set to 80 and the protocol to TCP

```
{
  "apiVersion": "v1",
  "kind": "Service",
  "metadata": {
    "labels": {
      "app": "redis"
    },
    "name": "redis"
  },
  "spec": {
    "ports": [ {
      "name": "service0",
      "port": 8080,
      "protocol": "TCP",
      "targetPort": 80
    } ],
    "selector": {
      "app": "redis"
    },
    "type": "ClusterIP"
  }
}
```

- Creating a Service of the LoadBalancer type and specifying the load balancer ID, project ID, and account ID For the LoadBalancer type, add the **kubernetes.io/elb.id**, **tenant.kubernetes.io/project-id**, and **tenant.kubernetes.io/domain-id** fields to **metadata.annotations**.

```
{
  "apiVersion": "v1",
  "kind": "Service",
  "metadata": {
    "annotations": {
      "kubernetes.io/elb.id": "77e6246c-a091-xxxx-xxxx-789baa571280",
      "tenant.kubernetes.io/domain-id": "65382xxxxxxxxxxxxxxxxxe684b",
      "tenant.kubernetes.io/project-id": "a9cab8xxxxxxxxxxxxxxxx41c0aeb"
    },
    "name": "nginx"
  },
  "spec": {
    "ports": [ {
      "name": "service0",
      "port": 8080,
      "protocol": "TCP",
      "targetPort": 80
    } ],
    "selector": {
      "app": "nginx"
    },
    "type": "LoadBalancer"
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "Service",
  "metadata": {
    "creationTimestamp": "2018-09-04T00:45:36Z",
    "labels": {
      "app": "redis"
    },
    "name": "redis",
    "namespace": "namespace-test",
    "resourceVersion": "5146412",
    "selfLink": "/api/v1/namespaces/namespace-test/services/redis",
    "uid": "d6a1ce79-afdb-11e8-b6ef-f898ef6c78b4"
  },
  "spec": {
    "clusterIP": "10.247.212.210",
    "ports": [ {
      "name": "service0",
      "port": 8080,
      "protocol": "TCP",
      "targetPort": 80
    } ],
    "selector": {
      "app": "redis"
    },
    "sessionAffinity": "None",
    "type": "ClusterIP"
  },
  "status": {
    "loadBalancer": { }
  }
}
```

## Status Codes

Status Code	Description
200	OK
201	Created
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	AlreadyExists

Status Code	Description
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.4.3 Deleting a Service

### Function

This API is used to delete a specified Service.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /api/v1/namespaces/{namespace}/services/{name}

**Table 5-1667** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Service
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-1668** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.

Parameter	Mandatory	Type	Description
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-1669** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-1670** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-1671** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

**Status code: 200**



**Table 5-1672** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1673** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1674** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional.  Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"

Parameter	Type	Description
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-1675** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

**Status code: 202**

**Table 5-1676** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1677** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>

Parameter	Type	Description
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1678** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-1679** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.

Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "code": 200,
  "kind": "Status",
  "metadata": { },
  "status": "Success"
}
```

## Status Codes

Status Code	Description
200	OK
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.4.4 Querying a Service

### Function

This API is used to query the details about a specified Service.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /api/v1/namespaces/{namespace}/services/{name}

**Table 5-1680** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Service



Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-1681** Query Parameters

Parameter	Mandatory	Type	Description
exact	No	Boolean	Should the export be exact. Exact export maintains cluster-specific fields like 'Namespace'. Deprecated. Planned for removal in 1.18.
export	No	Boolean	Should this value be exported. Export strips fields that a user can not specify. Deprecated. Planned for removal in 1.18.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-1682** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

**Status code: 200**

**Table 5-1683** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.ServiceSpec</a> object	Spec defines the behavior of a service. <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.ServiceStatus</a> object	Most recently observed status of the service. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1684** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-1685** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1686** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>



**Table 5-1687** io.k8s.api.core.v1.ServiceSpec

Parameter	Type	Description
clusterIP	String	clusterIP is the IP address of the service and is usually assigned randomly by the master. If an address is specified manually and is not in use by others, it will be allocated to the service; otherwise, creation of the service will fail. This field can not be changed through updates. Valid values are "None", empty string (""), or a valid IP address. "None" can be specified for headless services when proxying is not required. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
externalIPs	Array of strings	externalIPs is a list of IP addresses for which nodes in the cluster will also accept traffic for this service. These IPs are not managed by Kubernetes. The user is responsible for ensuring that traffic arrives at a node with this IP. A common example is external load-balancers that are not part of the Kubernetes system.
externalName	String	externalName is the external reference that kubedns or equivalent will return as a CNAME record for this service. No proxying will be involved. Must be a valid RFC-1123 hostname ( <a href="https://tools.ietf.org/html/rfc1123">https://tools.ietf.org/html/rfc1123</a> ) and requires Type to be ExternalName.
externalTrafficPolicy	String	externalTrafficPolicy denotes if this Service desires to route external traffic to node-local or cluster-wide endpoints. "Local" preserves the client source IP and avoids a second hop for LoadBalancer and Nodeport type services, but risks potentially imbalanced traffic spreading. "Cluster" obscures the client source IP and may cause a second hop to another node, but should have good overall load-spreading.
healthCheckNodePort	Integer	healthCheckNodePort specifies the healthcheck nodePort for the service. If not specified, HealthCheckNodePort is created by the service api backend with the allocated nodePort. Will use user-specified nodePort value if specified by the client. Only effects when Type is set to LoadBalancer and ExternalTrafficPolicy is set to Local.

Parameter	Type	Description
ipFamily	String	ipFamily specifies whether this Service has a preference for a particular IP family (e.g. IPv4 vs. IPv6) when the IPv6DualStack feature gate is enabled. In a dual-stack cluster, you can specify ipFamily when creating a ClusterIP Service to determine whether the controller will allocate an IPv4 or IPv6 IP for it, and you can specify ipFamily when creating a headless Service to determine whether it will have IPv4 or IPv6 Endpoints. In either case, if you do not specify an ipFamily explicitly, it will default to the cluster's primary IP family. This field is part of an alpha feature, and you should not make any assumptions about its semantics other than those described above. In particular, you should not assume that it can (or cannot) be changed after creation time; that it can only have the values "IPv4" and "IPv6"; or that its current value on a given Service correctly reflects the current state of that Service. (For ClusterIP Services, look at clusterIP to see if the Service is IPv4 or IPv6. For headless Services, look at the endpoints, which may be dual-stack in the future. For ExternalName Services, ipFamily has no meaning, but it may be set to an irrelevant value anyway.)
loadBalancerIP	String	Only applies to Service Type: LoadBalancer. LoadBalancer will get created with the IP specified in this field. This feature depends on whether the underlying cloud-provider supports specifying the loadBalancerIP when a load balancer is created. This field will be ignored if the cloud-provider does not support the feature.
loadBalancerSourceRanges	Array of strings	If specified and supported by the platform, this will restrict traffic through the cloud-provider load-balancer will be restricted to the specified client IPs. This field will be ignored if the cloud-provider does not support the feature." More info: <a href="https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/">https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/</a>
ports	Array of <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">io.k8s.api.core.v1.ServicePort</a> objects	The list of ports that are exposed by this service. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>

Parameter	Type	Description
publishNotReadyAddresses	Boolean	publishNotReadyAddresses indicates that any agent which deals with endpoints for this Service should disregard any indications of ready/not-ready. The primary use case for setting this field is for a StatefulSet's Headless Service to propagate SRV DNS records for its Pods for the purpose of peer discovery. The Kubernetes controllers that generate Endpoints and EndpointSlice resources for Services interpret this to mean that all endpoints are considered "ready" even if the Pods themselves are not. Agents which consume only Kubernetes generated endpoints through the Endpoints or EndpointSlice resources can safely assume this behavior.
selector	Map<String,String>	Route service traffic to pods with label keys and values matching this selector. If empty or not present, the service is assumed to have an external process managing its endpoints, which Kubernetes will not modify. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/">https://kubernetes.io/docs/concepts/services-networking/service/</a>
sessionAffinity	String	Supports "ClientIP" and "None". Used to maintain session affinity. Enable client IP based session affinity. Must be ClientIP or None. Defaults to None. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
sessionAffinityConfig	<a href="#">io.k8s.api.core.v1.SessionAffinityConfig</a> object	sessionAffinityConfig contains the configurations of session affinity.

Parameter	Type	Description
topologyKeys	Array of strings	topologyKeys is a preference-order list of topology keys which implementations of services should use to preferentially sort endpoints when accessing this Service, it can not be used at the same time as externalTrafficPolicy=Local. Topology keys must be valid label keys and at most 16 keys may be specified. Endpoints are chosen based on the first topology key with available backends. If this field is specified and all entries have no backends that match the topology of the client, the service has no backends for that client and connections should fail. The special value "*" may be used to mean "any topology". This catch-all value, if used, only makes sense as the last value in the list. If this is not specified or empty, no topology constraints will be applied.
type	String	type determines how the Service is exposed. Defaults to ClusterIP. Valid options are ExternalName, ClusterIP, NodePort, and LoadBalancer. "ExternalName" maps to the specified externalName. "ClusterIP" allocates a cluster-internal IP address for load-balancing to endpoints. Endpoints are determined by the selector or if that is not specified, by manual construction of an Endpoints object. If clusterIP is "None", no virtual IP is allocated and the endpoints are published as a set of endpoints rather than a stable IP. "NodePort" builds on ClusterIP and allocates a port on every node which routes to the clusterIP. "LoadBalancer" builds on NodePort and creates an external load-balancer (if supported in the current cloud) which routes to the clusterIP. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types">https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types</a>

**Table 5-1688** io.k8s.api.core.v1.ServicePort

Parameter	Type	Description
appProtocol	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Unprefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as <code>mycompany.com/my-custom-protocol</code> . This is a beta field that is guarded by the <code>ServiceAppProtocol</code> feature gate and enabled by default.
name	String	The name of this port within the service. This must be a <code>DNS_LABEL</code> . All ports within a <code>ServiceSpec</code> must have unique names. When considering the endpoints for a <code>Service</code> , this must match the 'name' field in the <code>EndpointPort</code> . Optional if only one <code>ServicePort</code> is defined on this service.
nodePort	Integer	The port on each node on which this service is exposed when <code>type=NodePort</code> or <code>LoadBalancer</code> . Usually assigned by the system. If specified, it will be allocated to the service if unused or else creation of the service will fail. Default is to auto-allocate a port if the <code>ServiceType</code> of this <code>Service</code> requires one. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport">https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport</a>
port	Integer	The port that will be exposed by this service.
protocol	String	The IP protocol for this port. Supports "TCP", "UDP", and "SCTP". Default is TCP.
targetPort	String	Number or name of the port to access on the pods targeted by the service. Number must be in the range 1 to 65535. Name must be an <code>IANA_SVC_NAME</code> . If this is a string, it will be looked up as a named port in the target Pod's container ports. If this is not specified, the value of the 'port' field is used (an identity map). This field is ignored for services with <code>clusterIP=None</code> , and should be omitted or set equal to the 'port' field. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service">https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service</a>

**Table 5-1689** io.k8s.api.core.v1.SessionAffinityConfig

Parameter	Type	Description
clientIP	<a href="#">io.k8s.api.core.v1.ClientIPConfig</a> object	clientIP contains the configurations of Client IP based session affinity.

**Table 5-1690** io.k8s.api.core.v1.ClientIPConfig

Parameter	Type	Description
timeoutSeconds	Integer	timeoutSeconds specifies the seconds of ClientIP type session sticky time. The value must be >0 && <=86400(for 1 day) if ServiceAffinity == "ClientIP". Default value is 10800(for 3 hours).

**Table 5-1691** io.k8s.api.core.v1.ServiceStatus

Parameter	Type	Description
loadBalancer	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer, if one is present.

**Table 5-1692** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Type	Description
ingress	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-1693** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Type	Description
hostname	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)

Parameter	Type	Description
ip	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "Service",
  "metadata": {
    "creationTimestamp": "2018-09-04T00:45:36Z",
    "labels": {
      "app": "redis"
    },
    "name": "redis",
    "namespace": "namespace-test",
    "resourceVersion": "5146412",
    "selfLink": "/api/v1/namespaces/namespace-test/services/redis",
    "uid": "d6a1ce79-afdb-11e8-b6ef-f898ef6c78b4"
  },
  "spec": {
    "clusterIP": "10.247.212.210",
    "ports": [ {
      "name": "service0",
      "port": 8080,
      "protocol": "TCP",
      "targetPort": 80
    } ],
    "selector": {
      "app": "redis"
    },
    "sessionAffinity": "None",
    "type": "ClusterIP"
  },
  "status": {
    "loadBalancer": { }
  }
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized

Status Code	Description
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.4.5 Updating a Service

### Function

This API is used to update a specified Service.

### Calling Method

For details, see [Calling APIs](#).

### URI

PATCH /api/v1/namespaces/{namespace}/services/{name}

**Table 5-1694** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Service
namespace	Yes	String	object name and auth scope, such as for teams and projects



**Table 5-1695** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> . This field is required for apply requests (application/apply-patch) but optional for non-apply patch types (JsonPatch, MergePatch, StrategicMergePatch).
force	No	Boolean	Force is going to "force" Apply requests. It means user will re-acquire conflicting fields owned by other people. Force flag must be unset for non-apply patch requests.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-1696** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	<p>Currently, three types of patch request methods are supported. For details, see "Update API Objects in Place Using kubectl patch" (<a href="https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/">https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/</a>).</p> <ul style="list-style-type: none"> <li>• <b>Json Patch, Content-Type: application/json-patch+json</b> As defined in RFC6902, Json Patch contains a series of operations on a JSON object. After receiving the object, the server applies the represented operations to the JSON object.</li> <li>• <b>Merge Patch, Content-Type: application/merge-patch+json</b> According to RFC 7386, Merge Patch contains some description of a JSON object. The JSON object is submitted to the server end and merges with the current object of the server end, which means to replace the list field of the current resource object to form a new object.</li> <li>• <b>Strategic Merge Patch, Content-Type: application/strategic-merge-patch+json</b> Strategic Merge Patch is used to add legal metadata to API objects and uses new metadata to determine which lists should be merged and which ones should not. The current metadata is used as the structure labels.</li> </ul>

**Table 5-1697** Request body parameters

Parameter	Mandatory	Type	Description
-	Yes	Object	Patch is provided to give a concrete name and type to the Kubernetes PATCH request body.

## Response Parameters

Status code: 200

**Table 5-1698** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.ServicesSpec</a> object	Spec defines the behavior of a service. <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.ServicesStatus</a> object	Most recently observed status of the service. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1699** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-1700** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>



Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1701** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1702** io.k8s.api.core.v1.ServiceSpec

Parameter	Type	Description
clusterIP	String	clusterIP is the IP address of the service and is usually assigned randomly by the master. If an address is specified manually and is not in use by others, it will be allocated to the service; otherwise, creation of the service will fail. This field can not be changed through updates. Valid values are "None", empty string (""), or a valid IP address. "None" can be specified for headless services when proxying is not required. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
externalIPs	Array of strings	externalIPs is a list of IP addresses for which nodes in the cluster will also accept traffic for this service. These IPs are not managed by Kubernetes. The user is responsible for ensuring that traffic arrives at a node with this IP. A common example is external load-balancers that are not part of the Kubernetes system.
externalName	String	externalName is the external reference that kubedns or equivalent will return as a CNAME record for this service. No proxying will be involved. Must be a valid RFC-1123 hostname ( <a href="https://tools.ietf.org/html/rfc1123">https://tools.ietf.org/html/rfc1123</a> ) and requires Type to be ExternalName.
externalTrafficPolicy	String	externalTrafficPolicy denotes if this Service desires to route external traffic to node-local or cluster-wide endpoints. "Local" preserves the client source IP and avoids a second hop for LoadBalancer and Nodeport type services, but risks potentially imbalanced traffic spreading. "Cluster" obscures the client source IP and may cause a second hop to another node, but should have good overall load-spreading.
healthCheckNodePort	Integer	healthCheckNodePort specifies the healthcheck nodePort for the service. If not specified, HealthCheckNodePort is created by the service api backend with the allocated nodePort. Will use user-specified nodePort value if specified by the client. Only effects when Type is set to LoadBalancer and ExternalTrafficPolicy is set to Local.

Parameter	Type	Description
ipFamily	String	ipFamily specifies whether this Service has a preference for a particular IP family (e.g. IPv4 vs. IPv6) when the IPv6DualStack feature gate is enabled. In a dual-stack cluster, you can specify ipFamily when creating a ClusterIP Service to determine whether the controller will allocate an IPv4 or IPv6 IP for it, and you can specify ipFamily when creating a headless Service to determine whether it will have IPv4 or IPv6 Endpoints. In either case, if you do not specify an ipFamily explicitly, it will default to the cluster's primary IP family. This field is part of an alpha feature, and you should not make any assumptions about its semantics other than those described above. In particular, you should not assume that it can (or cannot) be changed after creation time; that it can only have the values "IPv4" and "IPv6"; or that its current value on a given Service correctly reflects the current state of that Service. (For ClusterIP Services, look at clusterIP to see if the Service is IPv4 or IPv6. For headless Services, look at the endpoints, which may be dual-stack in the future. For ExternalName Services, ipFamily has no meaning, but it may be set to an irrelevant value anyway.)
loadBalancerIP	String	Only applies to Service Type: LoadBalancer. LoadBalancer will get created with the IP specified in this field. This feature depends on whether the underlying cloud-provider supports specifying the loadBalancerIP when a load balancer is created. This field will be ignored if the cloud-provider does not support the feature.
loadBalancerSourceRanges	Array of strings	If specified and supported by the platform, this will restrict traffic through the cloud-provider load-balancer will be restricted to the specified client IPs. This field will be ignored if the cloud-provider does not support the feature." More info: <a href="https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/">https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/</a>
ports	Array of <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">io.k8s.api.core.v1.ServicePort</a> objects	The list of ports that are exposed by this service. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>

Parameter	Type	Description
publishNotReadyAddresses	Boolean	publishNotReadyAddresses indicates that any agent which deals with endpoints for this Service should disregard any indications of ready/not-ready. The primary use case for setting this field is for a StatefulSet's Headless Service to propagate SRV DNS records for its Pods for the purpose of peer discovery. The Kubernetes controllers that generate Endpoints and EndpointSlice resources for Services interpret this to mean that all endpoints are considered "ready" even if the Pods themselves are not. Agents which consume only Kubernetes generated endpoints through the Endpoints or EndpointSlice resources can safely assume this behavior.
selector	Map<String,String>	Route service traffic to pods with label keys and values matching this selector. If empty or not present, the service is assumed to have an external process managing its endpoints, which Kubernetes will not modify. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/">https://kubernetes.io/docs/concepts/services-networking/service/</a>
sessionAffinity	String	Supports "ClientIP" and "None". Used to maintain session affinity. Enable client IP based session affinity. Must be ClientIP or None. Defaults to None. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
sessionAffinityConfig	<a href="#">io.k8s.api.core.v1.SessionAffinityConfig</a> object	sessionAffinityConfig contains the configurations of session affinity.

Parameter	Type	Description
topologyKeys	Array of strings	topologyKeys is a preference-order list of topology keys which implementations of services should use to preferentially sort endpoints when accessing this Service, it can not be used at the same time as externalTrafficPolicy=Local. Topology keys must be valid label keys and at most 16 keys may be specified. Endpoints are chosen based on the first topology key with available backends. If this field is specified and all entries have no backends that match the topology of the client, the service has no backends for that client and connections should fail. The special value "*" may be used to mean "any topology". This catch-all value, if used, only makes sense as the last value in the list. If this is not specified or empty, no topology constraints will be applied.
type	String	type determines how the Service is exposed. Defaults to ClusterIP. Valid options are ExternalName, ClusterIP, NodePort, and LoadBalancer. "ExternalName" maps to the specified externalName. "ClusterIP" allocates a cluster-internal IP address for load-balancing to endpoints. Endpoints are determined by the selector or if that is not specified, by manual construction of an Endpoints object. If clusterIP is "None", no virtual IP is allocated and the endpoints are published as a set of endpoints rather than a stable IP. "NodePort" builds on ClusterIP and allocates a port on every node which routes to the clusterIP. "LoadBalancer" builds on NodePort and creates an external load-balancer (if supported in the current cloud) which routes to the clusterIP. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types">https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types</a>

**Table 5-1703** io.k8s.api.core.v1.ServicePort

Parameter	Type	Description
appProtocol	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Unprefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as mycompany.com/my-custom-protocol. This is a beta field that is guarded by the ServiceAppProtocol feature gate and enabled by default.
name	String	The name of this port within the service. This must be a DNS_LABEL. All ports within a ServiceSpec must have unique names. When considering the endpoints for a Service, this must match the 'name' field in the EndpointPort. Optional if only one ServicePort is defined on this service.
nodePort	Integer	The port on each node on which this service is exposed when type=NodePort or LoadBalancer. Usually assigned by the system. If specified, it will be allocated to the service if unused or else creation of the service will fail. Default is to auto-allocate a port if the ServiceType of this Service requires one. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport">https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport</a>
port	Integer	The port that will be exposed by this service.
protocol	String	The IP protocol for this port. Supports "TCP", "UDP", and "SCTP". Default is TCP.
targetPort	String	Number or name of the port to access on the pods targeted by the service. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME. If this is a string, it will be looked up as a named port in the target Pod's container ports. If this is not specified, the value of the 'port' field is used (an identity map). This field is ignored for services with clusterIP=None, and should be omitted or set equal to the 'port' field. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service">https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service</a>

**Table 5-1704** io.k8s.api.core.v1.SessionAffinityConfig

Parameter	Type	Description
clientIP	<a href="#">io.k8s.api.core.v1.ClientIPConfig</a> object	clientIP contains the configurations of Client IP based session affinity.

**Table 5-1705** io.k8s.api.core.v1.ClientIPConfig

Parameter	Type	Description
timeoutSeconds	Integer	timeoutSeconds specifies the seconds of ClientIP type session sticky time. The value must be >0 && <=86400(for 1 day) if ServiceAffinity == "ClientIP". Default value is 10800(for 3 hours).

**Table 5-1706** io.k8s.api.core.v1.ServiceStatus

Parameter	Type	Description
loadBalancer	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer, if one is present.

**Table 5-1707** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Type	Description
ingress	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-1708** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Type	Description
hostname	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)

Parameter	Type	Description
ip	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

## Example Requests

Updating the **labels** value of an existing Service to **"some-key": "some-value"**

```
{
  "metadata": {
    "labels": {
      "some-key": "some-value"
    }
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "Service",
  "metadata": {
    "creationTimestamp": "2022-09-08T07:14:35Z",
    "labels": {
      "app": "service-test",
      "some-key": "some-value"
    },
    "name": "service-test",
    "namespace": "namespace-test",
    "resourceVersion": "43938742",
    "selfLink": "/api/v1/namespaces/namespace-test/services/service-test",
    "uid": "4397866e-7583-42e3-b428-2381045e1513"
  },
  "spec": {
    "clusterIP": "10.247.175.81",
    "ports": [ {
      "name": "service0",
      "port": 80,
      "protocol": "TCP",
      "targetPort": 80
    } ],
    "selector": {
      "app": "service-test"
    },
    "sessionAffinity": "None",
    "type": "ClusterIP"
  },
  "status": {
    "loadBalancer": { }
  }
}
```



## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.4.6 Replacing a Service

### Function

This API is used to replace a specified Service.

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /api/v1/namespaces/{namespace}/services/{name}

**Table 5-1709** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Service
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-1710** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-1711** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-1712** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.core.v1.ServiceSpec</a> object	Spec defines the behavior of a service. <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	No	<a href="#">io.k8s.api.core.v1.ServiceStatus</a> object	Most recently observed status of the service. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1713** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>



Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-1714** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1715** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1716** io.k8s.api.core.v1.ServiceSpec

Parameter	Mandatory	Type	Description
clusterIP	No	String	clusterIP is the IP address of the service and is usually assigned randomly by the master. If an address is specified manually and is not in use by others, it will be allocated to the service; otherwise, creation of the service will fail. This field can not be changed through updates. Valid values are "None", empty string (""), or a valid IP address. "None" can be specified for headless services when proxying is not required. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
externalIPs	No	Array of strings	externalIPs is a list of IP addresses for which nodes in the cluster will also accept traffic for this service. These IPs are not managed by Kubernetes. The user is responsible for ensuring that traffic arrives at a node with this IP. A common example is external load-balancers that are not part of the Kubernetes system.
externalName	No	String	externalName is the external reference that kubedns or equivalent will return as a CNAME record for this service. No proxying will be involved. Must be a valid RFC-1123 hostname ( <a href="https://tools.ietf.org/html/rfc1123">https://tools.ietf.org/html/rfc1123</a> ) and requires Type to be ExternalName.

Parameter	Mandatory	Type	Description
externalTrafficPolicy	No	String	externalTrafficPolicy denotes if this Service desires to route external traffic to node-local or cluster-wide endpoints. "Local" preserves the client source IP and avoids a second hop for LoadBalancer and Nodeport type services, but risks potentially imbalanced traffic spreading. "Cluster" obscures the client source IP and may cause a second hop to another node, but should have good overall load-spreading.
healthCheckNodePort	No	Integer	healthCheckNodePort specifies the healthcheck nodePort for the service. If not specified, HealthCheckNodePort is created by the service api backend with the allocated nodePort. Will use user-specified nodePort value if specified by the client. Only effects when Type is set to LoadBalancer and ExternalTrafficPolicy is set to Local.

Parameter	Mandatory	Type	Description
ipFamily	No	String	<p>ipFamily specifies whether this Service has a preference for a particular IP family (e.g. IPv4 vs. IPv6) when the IPv6DualStack feature gate is enabled. In a dual-stack cluster, you can specify ipFamily when creating a ClusterIP Service to determine whether the controller will allocate an IPv4 or IPv6 IP for it, and you can specify ipFamily when creating a headless Service to determine whether it will have IPv4 or IPv6 Endpoints. In either case, if you do not specify an ipFamily explicitly, it will default to the cluster's primary IP family. This field is part of an alpha feature, and you should not make any assumptions about its semantics other than those described above. In particular, you should not assume that it can (or cannot) be changed after creation time; that it can only have the values "IPv4" and "IPv6"; or that its current value on a given Service correctly reflects the current state of that Service. (For ClusterIP Services, look at clusterIP to see if the Service is IPv4 or IPv6. For headless Services, look at the endpoints, which may be dual-stack in the future. For ExternalName Services, ipFamily has no meaning, but it may be set to an irrelevant value anyway.)</p>

Parameter	Mandatory	Type	Description
loadBalancerIP	No	String	Only applies to Service Type: LoadBalancer. LoadBalancer will get created with the IP specified in this field. This feature depends on whether the underlying cloud-provider supports specifying the loadBalancerIP when a load balancer is created. This field will be ignored if the cloud-provider does not support the feature.
loadBalancerSourceRanges	No	Array of strings	If specified and supported by the platform, this will restrict traffic through the cloud-provider load-balancer will be restricted to the specified client IPs. This field will be ignored if the cloud-provider does not support the feature." More info: <a href="https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/">https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/</a>
ports	No	Array of <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">io.k8s.api.core.v1.ServicePort</a> objects	The list of ports that are exposed by this service. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>

Parameter	Mandatory	Type	Description
publishNotReadyAddresses	No	Boolean	publishNotReadyAddresses indicates that any agent which deals with endpoints for this Service should disregard any indications of ready/not-ready. The primary use case for setting this field is for a StatefulSet's Headless Service to propagate SRV DNS records for its Pods for the purpose of peer discovery. The Kubernetes controllers that generate Endpoints and EndpointSlice resources for Services interpret this to mean that all endpoints are considered "ready" even if the Pods themselves are not. Agents which consume only Kubernetes generated endpoints through the Endpoints or EndpointSlice resources can safely assume this behavior.
selector	No	Map<String,String>	Route service traffic to pods with label keys and values matching this selector. If empty or not present, the service is assumed to have an external process managing its endpoints, which Kubernetes will not modify. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/">https://kubernetes.io/docs/concepts/services-networking/service/</a>
sessionAffinity	No	String	Supports "ClientIP" and "None". Used to maintain session affinity. Enable client IP based session affinity. Must be ClientIP or None. Defaults to None. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>



Parameter	Mandatory	Type	Description
sessionAffinityConfig	No	<a href="https://kubernetes.io/api-references/api-types/sessionaffinityconfig/">io.k8s.api.core.v1.SessionAffinityConfig</a> object	sessionAffinityConfig contains the configurations of session affinity.
topologyKeys	No	Array of strings	topologyKeys is a preference-order list of topology keys which implementations of services should use to preferentially sort endpoints when accessing this Service, it can not be used at the same time as externalTrafficPolicy=Local. Topology keys must be valid label keys and at most 16 keys may be specified. Endpoints are chosen based on the first topology key with available backends. If this field is specified and all entries have no backends that match the topology of the client, the service has no backends for that client and connections should fail. The special value "*" may be used to mean "any topology". This catch-all value, if used, only makes sense as the last value in the list. If this is not specified or empty, no topology constraints will be applied.

Parameter	Mandatory	Type	Description
type	No	String	<p>type determines how the Service is exposed. Defaults to ClusterIP. Valid options are ExternalName, ClusterIP, NodePort, and LoadBalancer. "ExternalName" maps to the specified externalName. "ClusterIP" allocates a cluster-internal IP address for load-balancing to endpoints. Endpoints are determined by the selector or if that is not specified, by manual construction of an Endpoints object. If clusterIP is "None", no virtual IP is allocated and the endpoints are published as a set of endpoints rather than a stable IP. "NodePort" builds on ClusterIP and allocates a port on every node which routes to the clusterIP. "LoadBalancer" builds on NodePort and creates an external load-balancer (if supported in the current cloud) which routes to the clusterIP. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types">https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types</a></p>

**Table 5-1717** io.k8s.api.core.v1.ServicePort

Parameter	Mandatory	Type	Description
appProtocol	No	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Un-prefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as <code>mycompany.com/my-custom-protocol</code> . This is a beta field that is guarded by the <code>ServiceAppProtocol</code> feature gate and enabled by default.
name	No	String	The name of this port within the service. This must be a <code>DNS_LABEL</code> . All ports within a <code>ServiceSpec</code> must have unique names. When considering the endpoints for a <code>Service</code> , this must match the 'name' field in the <code>EndpointPort</code> . Optional if only one <code>ServicePort</code> is defined on this service.
nodePort	No	Integer	The port on each node on which this service is exposed when <code>type=NodePort</code> or <code>LoadBalancer</code> . Usually assigned by the system. If specified, it will be allocated to the service if unused or else creation of the service will fail. Default is to auto-allocate a port if the <code>ServiceType</code> of this <code>Service</code> requires one. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport">https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport</a>
port	Yes	Integer	The port that will be exposed by this service.
protocol	No	String	The IP protocol for this port. Supports "TCP", "UDP", and "SCTP". Default is TCP.

Parameter	Mandatory	Type	Description
targetPort	No	String	Number or name of the port to access on the pods targeted by the service. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME. If this is a string, it will be looked up as a named port in the target Pod's container ports. If this is not specified, the value of the 'port' field is used (an identity map). This field is ignored for services with clusterIP=None, and should be omitted or set equal to the 'port' field. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service">https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service</a>

**Table 5-1718** io.k8s.api.core.v1.SessionAffinityConfig

Parameter	Mandatory	Type	Description
clientIP	No	<a href="#">io.k8s.api.core.v1.ClientIPConfig</a> object	clientIP contains the configurations of Client IP based session affinity.

**Table 5-1719** io.k8s.api.core.v1.ClientIPConfig

Parameter	Mandatory	Type	Description
timeoutSeconds	No	Integer	timeoutSeconds specifies the seconds of ClientIP type session sticky time. The value must be >0 && <=86400(for 1 day) if ServiceAffinity == "ClientIP". Default value is 10800(for 3 hours).

**Table 5-1720** io.k8s.api.core.v1.ServiceStatus

Parameter	Mandatory	Type	Description
loadBalancer	No	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer, if one is present.

**Table 5-1721** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Mandatory	Type	Description
ingress	No	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-1722** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Mandatory	Type	Description
hostname	No	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)
ip	No	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

## Response Parameters

Status code: 200

**Table 5-1723** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.ServicesSpec</a> object	Spec defines the behavior of a service. <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.ServicesStatus</a> object	Most recently observed status of the service. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1724** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>



Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1725** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1726** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1727** io.k8s.api.core.v1.ServiceSpec

Parameter	Type	Description
clusterIP	String	clusterIP is the IP address of the service and is usually assigned randomly by the master. If an address is specified manually and is not in use by others, it will be allocated to the service; otherwise, creation of the service will fail. This field can not be changed through updates. Valid values are "None", empty string (""), or a valid IP address. "None" can be specified for headless services when proxying is not required. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
externalIPs	Array of strings	externalIPs is a list of IP addresses for which nodes in the cluster will also accept traffic for this service. These IPs are not managed by Kubernetes. The user is responsible for ensuring that traffic arrives at a node with this IP. A common example is external load-balancers that are not part of the Kubernetes system.
externalName	String	externalName is the external reference that kubedns or equivalent will return as a CNAME record for this service. No proxying will be involved. Must be a valid RFC-1123 hostname ( <a href="https://tools.ietf.org/html/rfc1123">https://tools.ietf.org/html/rfc1123</a> ) and requires Type to be ExternalName.
externalTrafficPolicy	String	externalTrafficPolicy denotes if this Service desires to route external traffic to node-local or cluster-wide endpoints. "Local" preserves the client source IP and avoids a second hop for LoadBalancer and Nodeport type services, but risks potentially imbalanced traffic spreading. "Cluster" obscures the client source IP and may cause a second hop to another node, but should have good overall load-spreading.
healthCheckNodePort	Integer	healthCheckNodePort specifies the healthcheck nodePort for the service. If not specified, HealthCheckNodePort is created by the service api backend with the allocated nodePort. Will use user-specified nodePort value if specified by the client. Only effects when Type is set to LoadBalancer and ExternalTrafficPolicy is set to Local.

Parameter	Type	Description
ipFamily	String	ipFamily specifies whether this Service has a preference for a particular IP family (e.g. IPv4 vs. IPv6) when the IPv6DualStack feature gate is enabled. In a dual-stack cluster, you can specify ipFamily when creating a ClusterIP Service to determine whether the controller will allocate an IPv4 or IPv6 IP for it, and you can specify ipFamily when creating a headless Service to determine whether it will have IPv4 or IPv6 Endpoints. In either case, if you do not specify an ipFamily explicitly, it will default to the cluster's primary IP family. This field is part of an alpha feature, and you should not make any assumptions about its semantics other than those described above. In particular, you should not assume that it can (or cannot) be changed after creation time; that it can only have the values "IPv4" and "IPv6"; or that its current value on a given Service correctly reflects the current state of that Service. (For ClusterIP Services, look at clusterIP to see if the Service is IPv4 or IPv6. For headless Services, look at the endpoints, which may be dual-stack in the future. For ExternalName Services, ipFamily has no meaning, but it may be set to an irrelevant value anyway.)
loadBalancerIP	String	Only applies to Service Type: LoadBalancer. LoadBalancer will get created with the IP specified in this field. This feature depends on whether the underlying cloud-provider supports specifying the loadBalancerIP when a load balancer is created. This field will be ignored if the cloud-provider does not support the feature.
loadBalancerSourceRanges	Array of strings	If specified and supported by the platform, this will restrict traffic through the cloud-provider load-balancer will be restricted to the specified client IPs. This field will be ignored if the cloud-provider does not support the feature." More info: <a href="https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/">https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/</a>
ports	Array of <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">io.k8s.api.core.v1.ServicePort</a> objects	The list of ports that are exposed by this service. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>

Parameter	Type	Description
publishNotReadyAddresses	Boolean	publishNotReadyAddresses indicates that any agent which deals with endpoints for this Service should disregard any indications of ready/not-ready. The primary use case for setting this field is for a StatefulSet's Headless Service to propagate SRV DNS records for its Pods for the purpose of peer discovery. The Kubernetes controllers that generate Endpoints and EndpointSlice resources for Services interpret this to mean that all endpoints are considered "ready" even if the Pods themselves are not. Agents which consume only Kubernetes generated endpoints through the Endpoints or EndpointSlice resources can safely assume this behavior.
selector	Map<String,String>	Route service traffic to pods with label keys and values matching this selector. If empty or not present, the service is assumed to have an external process managing its endpoints, which Kubernetes will not modify. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/">https://kubernetes.io/docs/concepts/services-networking/service/</a>
sessionAffinity	String	Supports "ClientIP" and "None". Used to maintain session affinity. Enable client IP based session affinity. Must be ClientIP or None. Defaults to None. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
sessionAffinityConfig	<a href="#">io.k8s.api.core.v1.SessionAffinityConfig</a> object	sessionAffinityConfig contains the configurations of session affinity.

Parameter	Type	Description
topologyKeys	Array of strings	topologyKeys is a preference-order list of topology keys which implementations of services should use to preferentially sort endpoints when accessing this Service, it can not be used at the same time as externalTrafficPolicy=Local. Topology keys must be valid label keys and at most 16 keys may be specified. Endpoints are chosen based on the first topology key with available backends. If this field is specified and all entries have no backends that match the topology of the client, the service has no backends for that client and connections should fail. The special value "*" may be used to mean "any topology". This catch-all value, if used, only makes sense as the last value in the list. If this is not specified or empty, no topology constraints will be applied.
type	String	type determines how the Service is exposed. Defaults to ClusterIP. Valid options are ExternalName, ClusterIP, NodePort, and LoadBalancer. "ExternalName" maps to the specified externalName. "ClusterIP" allocates a cluster-internal IP address for load-balancing to endpoints. Endpoints are determined by the selector or if that is not specified, by manual construction of an Endpoints object. If clusterIP is "None", no virtual IP is allocated and the endpoints are published as a set of endpoints rather than a stable IP. "NodePort" builds on ClusterIP and allocates a port on every node which routes to the clusterIP. "LoadBalancer" builds on NodePort and creates an external load-balancer (if supported in the current cloud) which routes to the clusterIP. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types">https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types</a>

**Table 5-1728** io.k8s.api.core.v1.ServicePort

Parameter	Type	Description
appProtocol	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Unprefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as mycompany.com/my-custom-protocol. This is a beta field that is guarded by the ServiceAppProtocol feature gate and enabled by default.
name	String	The name of this port within the service. This must be a DNS_LABEL. All ports within a ServiceSpec must have unique names. When considering the endpoints for a Service, this must match the 'name' field in the EndpointPort. Optional if only one ServicePort is defined on this service.
nodePort	Integer	The port on each node on which this service is exposed when type=NodePort or LoadBalancer. Usually assigned by the system. If specified, it will be allocated to the service if unused or else creation of the service will fail. Default is to auto-allocate a port if the ServiceType of this Service requires one. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport">https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport</a>
port	Integer	The port that will be exposed by this service.
protocol	String	The IP protocol for this port. Supports "TCP", "UDP", and "SCTP". Default is TCP.
targetPort	String	Number or name of the port to access on the pods targeted by the service. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME. If this is a string, it will be looked up as a named port in the target Pod's container ports. If this is not specified, the value of the 'port' field is used (an identity map). This field is ignored for services with clusterIP=None, and should be omitted or set equal to the 'port' field. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service">https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service</a>



**Table 5-1729** io.k8s.api.core.v1.SessionAffinityConfig

Parameter	Type	Description
clientIP	<a href="#">io.k8s.api.core.v1.ClientIPConfig</a> object	clientIP contains the configurations of Client IP based session affinity.

**Table 5-1730** io.k8s.api.core.v1.ClientIPConfig

Parameter	Type	Description
timeoutSeconds	Integer	timeoutSeconds specifies the seconds of ClientIP type session sticky time. The value must be >0 && <=86400(for 1 day) if ServiceAffinity == "ClientIP". Default value is 10800(for 3 hours).

**Table 5-1731** io.k8s.api.core.v1.ServiceStatus

Parameter	Type	Description
loadBalancer	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer, if one is present.

**Table 5-1732** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Type	Description
ingress	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-1733** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Type	Description
hostname	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)

Parameter	Type	Description
ip	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

**Status code: 201**

**Table 5-1734** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.ServiceSpec</a> object	Spec defines the behavior of a service. <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.ServiceStatus</a> object	Most recently observed status of the service. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1735** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-1736** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1737** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>



**Table 5-1738** io.k8s.api.core.v1.ServiceSpec

Parameter	Type	Description
clusterIP	String	clusterIP is the IP address of the service and is usually assigned randomly by the master. If an address is specified manually and is not in use by others, it will be allocated to the service; otherwise, creation of the service will fail. This field can not be changed through updates. Valid values are "None", empty string (""), or a valid IP address. "None" can be specified for headless services when proxying is not required. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
externalIPs	Array of strings	externalIPs is a list of IP addresses for which nodes in the cluster will also accept traffic for this service. These IPs are not managed by Kubernetes. The user is responsible for ensuring that traffic arrives at a node with this IP. A common example is external load-balancers that are not part of the Kubernetes system.
externalName	String	externalName is the external reference that kubectl or equivalent will return as a CNAME record for this service. No proxying will be involved. Must be a valid RFC-1123 hostname ( <a href="https://tools.ietf.org/html/rfc1123">https://tools.ietf.org/html/rfc1123</a> ) and requires Type to be ExternalName.
externalTrafficPolicy	String	externalTrafficPolicy denotes if this Service desires to route external traffic to node-local or cluster-wide endpoints. "Local" preserves the client source IP and avoids a second hop for LoadBalancer and Nodeport type services, but risks potentially imbalanced traffic spreading. "Cluster" obscures the client source IP and may cause a second hop to another node, but should have good overall load-spreading.
healthCheckNodePort	Integer	healthCheckNodePort specifies the healthcheck nodePort for the service. If not specified, HealthCheckNodePort is created by the service api backend with the allocated nodePort. Will use user-specified nodePort value if specified by the client. Only effects when Type is set to LoadBalancer and ExternalTrafficPolicy is set to Local.

Parameter	Type	Description
ipFamily	String	ipFamily specifies whether this Service has a preference for a particular IP family (e.g. IPv4 vs. IPv6) when the IPv6DualStack feature gate is enabled. In a dual-stack cluster, you can specify ipFamily when creating a ClusterIP Service to determine whether the controller will allocate an IPv4 or IPv6 IP for it, and you can specify ipFamily when creating a headless Service to determine whether it will have IPv4 or IPv6 Endpoints. In either case, if you do not specify an ipFamily explicitly, it will default to the cluster's primary IP family. This field is part of an alpha feature, and you should not make any assumptions about its semantics other than those described above. In particular, you should not assume that it can (or cannot) be changed after creation time; that it can only have the values "IPv4" and "IPv6"; or that its current value on a given Service correctly reflects the current state of that Service. (For ClusterIP Services, look at clusterIP to see if the Service is IPv4 or IPv6. For headless Services, look at the endpoints, which may be dual-stack in the future. For ExternalName Services, ipFamily has no meaning, but it may be set to an irrelevant value anyway.)
loadBalancerIP	String	Only applies to Service Type: LoadBalancer. LoadBalancer will get created with the IP specified in this field. This feature depends on whether the underlying cloud-provider supports specifying the loadBalancerIP when a load balancer is created. This field will be ignored if the cloud-provider does not support the feature.
loadBalancerSourceRanges	Array of strings	If specified and supported by the platform, this will restrict traffic through the cloud-provider load-balancer will be restricted to the specified client IPs. This field will be ignored if the cloud-provider does not support the feature." More info: <a href="https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/">https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/</a>
ports	Array of <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">io.k8s.api.core.v1.ServicePort</a> objects	The list of ports that are exposed by this service. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>

Parameter	Type	Description
publishNotReadyAddresses	Boolean	publishNotReadyAddresses indicates that any agent which deals with endpoints for this Service should disregard any indications of ready/not-ready. The primary use case for setting this field is for a StatefulSet's Headless Service to propagate SRV DNS records for its Pods for the purpose of peer discovery. The Kubernetes controllers that generate Endpoints and EndpointSlice resources for Services interpret this to mean that all endpoints are considered "ready" even if the Pods themselves are not. Agents which consume only Kubernetes generated endpoints through the Endpoints or EndpointSlice resources can safely assume this behavior.
selector	Map<String,String>	Route service traffic to pods with label keys and values matching this selector. If empty or not present, the service is assumed to have an external process managing its endpoints, which Kubernetes will not modify. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/">https://kubernetes.io/docs/concepts/services-networking/service/</a>
sessionAffinity	String	Supports "ClientIP" and "None". Used to maintain session affinity. Enable client IP based session affinity. Must be ClientIP or None. Defaults to None. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
sessionAffinityConfig	<a href="#">io.k8s.api.core.v1.SessionAffinityConfig</a> object	sessionAffinityConfig contains the configurations of session affinity.

Parameter	Type	Description
topologyKeys	Array of strings	topologyKeys is a preference-order list of topology keys which implementations of services should use to preferentially sort endpoints when accessing this Service, it can not be used at the same time as externalTrafficPolicy=Local. Topology keys must be valid label keys and at most 16 keys may be specified. Endpoints are chosen based on the first topology key with available backends. If this field is specified and all entries have no backends that match the topology of the client, the service has no backends for that client and connections should fail. The special value "*" may be used to mean "any topology". This catch-all value, if used, only makes sense as the last value in the list. If this is not specified or empty, no topology constraints will be applied.
type	String	type determines how the Service is exposed. Defaults to ClusterIP. Valid options are ExternalName, ClusterIP, NodePort, and LoadBalancer. "ExternalName" maps to the specified externalName. "ClusterIP" allocates a cluster-internal IP address for load-balancing to endpoints. Endpoints are determined by the selector or if that is not specified, by manual construction of an Endpoints object. If clusterIP is "None", no virtual IP is allocated and the endpoints are published as a set of endpoints rather than a stable IP. "NodePort" builds on ClusterIP and allocates a port on every node which routes to the clusterIP. "LoadBalancer" builds on NodePort and creates an external load-balancer (if supported in the current cloud) which routes to the clusterIP. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types">https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types</a>

**Table 5-1739** io.k8s.api.core.v1.ServicePort

Parameter	Type	Description
appProtocol	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Unprefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as mycompany.com/my-custom-protocol. This is a beta field that is guarded by the ServiceAppProtocol feature gate and enabled by default.
name	String	The name of this port within the service. This must be a DNS_LABEL. All ports within a ServiceSpec must have unique names. When considering the endpoints for a Service, this must match the 'name' field in the EndpointPort. Optional if only one ServicePort is defined on this service.
nodePort	Integer	The port on each node on which this service is exposed when type=NodePort or LoadBalancer. Usually assigned by the system. If specified, it will be allocated to the service if unused or else creation of the service will fail. Default is to auto-allocate a port if the ServiceType of this Service requires one. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport">https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport</a>
port	Integer	The port that will be exposed by this service.
protocol	String	The IP protocol for this port. Supports "TCP", "UDP", and "SCTP". Default is TCP.
targetPort	String	Number or name of the port to access on the pods targeted by the service. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME. If this is a string, it will be looked up as a named port in the target Pod's container ports. If this is not specified, the value of the 'port' field is used (an identity map). This field is ignored for services with clusterIP=None, and should be omitted or set equal to the 'port' field. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service">https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service</a>

**Table 5-1740** io.k8s.api.core.v1.SessionAffinityConfig

Parameter	Type	Description
clientIP	<a href="#">io.k8s.api.core.v1.ClientIPConfig</a> object	clientIP contains the configurations of Client IP based session affinity.

**Table 5-1741** io.k8s.api.core.v1.ClientIPConfig

Parameter	Type	Description
timeoutSeconds	Integer	timeoutSeconds specifies the seconds of ClientIP type session sticky time. The value must be >0 && <=86400(for 1 day) if ServiceAffinity == "ClientIP". Default value is 10800(for 3 hours).

**Table 5-1742** io.k8s.api.core.v1.ServiceStatus

Parameter	Type	Description
loadBalancer	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer, if one is present.

**Table 5-1743** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Type	Description
ingress	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-1744** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Type	Description
hostname	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)

Parameter	Type	Description
ip	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

## Example Requests

Changing the name of an existing Service to **service-test**

```
{
  "apiVersion": "v1",
  "kind": "Service",
  "metadata": {
    "annotations": {
      "kubernetes.io/elb.class": "dnat",
      "kubernetes.io/natgateway.id": "4ed25dd6-1887-439f-aef6-b1e3f2b57b5c",
      "tenant.kubernetes.io/domain-id": "08a2c8ef8180d4150ff5c0012463ee60",
      "tenant.kubernetes.io/project-id": "08a2c8ef8d80d4152ff8c001d0281c03"
    },
    "creationTimestamp": "2022-09-06T06:28:09Z",
    "finalizers": [ "service.kubernetes.io/load-balancer-cleanup" ],
    "labels": {
      "app": "service-test"
    },
    "name": "service-test",
    "namespace": "namespace-test",
    "resourceVersion": "41521168",
    "selfLink": "/api/v1/namespaces/namespace-test/services/service-test",
    "uid": "7dfc42ef-f938-401c-b44a-1f7bd79b3fcb"
  },
  "spec": {
    "clusterIP": "10.247.64.172",
    "externalTrafficPolicy": "Cluster",
    "loadBalancerIP": "100.93.1.98",
    "ports": [ {
      "name": "service0",
      "nodePort": 31966,
      "port": 30157,
      "protocol": "TCP",
      "targetPort": 80
    } ],
    "selector": {
      "app": "service-test"
    },
    "sessionAffinity": "None",
    "type": "LoadBalancer"
  },
  "status": {
    "loadBalancer": { }
  }
}
```

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "v1",
  "kind": "Service",
  "metadata": {
```

```

"annotations" : {
  "kubernetes.io/elb.class" : "dnat",
  "kubernetes.io/natgateway.id" : "4ed25dd6-1887-439f-ae6f-b1e3f2b57b5c",
  "tenant.kubernetes.io/domain-id" : "08a2c8ef8180d4150ff5c0012463ee60",
  "tenant.kubernetes.io/project-id" : "08a2c8ef8d80d4152ff8c001d0281c03"
},
"creationTimestamp" : "2022-09-06T06:28:09Z",
"finalizers" : [ "service.kubernetes.io/load-balancer-cleanup" ],
"labels" : {
  "app" : "service-test"
},
"name" : "service-test",
"namespace" : "namespace-test",
"resourceVersion" : "41521168",
"selfLink" : "/api/v1/namespaces/namespace-test/services/service-test",
"uid" : "7dfc42ef-f938-401c-b44a-1f7bd79b3fcb"
},
"spec" : {
  "clusterIP" : "10.247.64.172",
  "externalTrafficPolicy" : "Cluster",
  "loadBalancerIP" : "100.93.1.98",
  "ports" : [ {
    "name" : "service0",
    "nodePort" : 31966,
    "port" : 30157,
    "protocol" : "TCP",
    "targetPort" : 80
  } ],
  "selector" : {
    "app" : "service-test"
  },
  "sessionAffinity" : "None",
  "type" : "LoadBalancer"
},
"status" : {
  "loadBalancer" : { }
}
}

```

## Status Codes

Status Code	Description
200	OK
201	Created
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid



Status Code	Description
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.4.7 Querying the Status of a Service

### Function

This API is used to query the status of a specified Service.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /api/v1/namespaces/{namespace}/services/{name}/status

**Table 5-1745** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Service
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-1746** Query Parameters

Parameter	Mandatory	Type	Description
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

Table 5-1747 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

Table 5-1748 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.ServicesSpec</a> object	Spec defines the behavior of a service. <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

Parameter	Type	Description
status	<a href="#">io.k8s.api.core.v1.ServiceStatus</a> object	Most recently observed status of the service. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1749** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC. Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1750** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1751** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>



**Table 5-1752** io.k8s.api.core.v1.ServiceSpec

Parameter	Type	Description
clusterIP	String	clusterIP is the IP address of the service and is usually assigned randomly by the master. If an address is specified manually and is not in use by others, it will be allocated to the service; otherwise, creation of the service will fail. This field can not be changed through updates. Valid values are "None", empty string (""), or a valid IP address. "None" can be specified for headless services when proxying is not required. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
externalIPs	Array of strings	externalIPs is a list of IP addresses for which nodes in the cluster will also accept traffic for this service. These IPs are not managed by Kubernetes. The user is responsible for ensuring that traffic arrives at a node with this IP. A common example is external load-balancers that are not part of the Kubernetes system.
externalName	String	externalName is the external reference that kubedns or equivalent will return as a CNAME record for this service. No proxying will be involved. Must be a valid RFC-1123 hostname ( <a href="https://tools.ietf.org/html/rfc1123">https://tools.ietf.org/html/rfc1123</a> ) and requires Type to be ExternalName.
externalTrafficPolicy	String	externalTrafficPolicy denotes if this Service desires to route external traffic to node-local or cluster-wide endpoints. "Local" preserves the client source IP and avoids a second hop for LoadBalancer and Nodeport type services, but risks potentially imbalanced traffic spreading. "Cluster" obscures the client source IP and may cause a second hop to another node, but should have good overall load-spreading.
healthCheckNodePort	Integer	healthCheckNodePort specifies the healthcheck nodePort for the service. If not specified, HealthCheckNodePort is created by the service api backend with the allocated nodePort. Will use user-specified nodePort value if specified by the client. Only effects when Type is set to LoadBalancer and ExternalTrafficPolicy is set to Local.

Parameter	Type	Description
ipFamily	String	ipFamily specifies whether this Service has a preference for a particular IP family (e.g. IPv4 vs. IPv6) when the IPv6DualStack feature gate is enabled. In a dual-stack cluster, you can specify ipFamily when creating a ClusterIP Service to determine whether the controller will allocate an IPv4 or IPv6 IP for it, and you can specify ipFamily when creating a headless Service to determine whether it will have IPv4 or IPv6 Endpoints. In either case, if you do not specify an ipFamily explicitly, it will default to the cluster's primary IP family. This field is part of an alpha feature, and you should not make any assumptions about its semantics other than those described above. In particular, you should not assume that it can (or cannot) be changed after creation time; that it can only have the values "IPv4" and "IPv6"; or that its current value on a given Service correctly reflects the current state of that Service. (For ClusterIP Services, look at clusterIP to see if the Service is IPv4 or IPv6. For headless Services, look at the endpoints, which may be dual-stack in the future. For ExternalName Services, ipFamily has no meaning, but it may be set to an irrelevant value anyway.)
loadBalancerIP	String	Only applies to Service Type: LoadBalancer. LoadBalancer will get created with the IP specified in this field. This feature depends on whether the underlying cloud-provider supports specifying the loadBalancerIP when a load balancer is created. This field will be ignored if the cloud-provider does not support the feature.
loadBalancerSourceRanges	Array of strings	If specified and supported by the platform, this will restrict traffic through the cloud-provider load-balancer will be restricted to the specified client IPs. This field will be ignored if the cloud-provider does not support the feature." More info: <a href="https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/">https://kubernetes.io/docs/tasks/access-application-cluster/configure-cloud-provider-firewall/</a>
ports	Array of <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">io.k8s.api.core.v1.ServicePort</a> objects	The list of ports that are exposed by this service. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>

Parameter	Type	Description
publishNotReadyAddresses	Boolean	publishNotReadyAddresses indicates that any agent which deals with endpoints for this Service should disregard any indications of ready/not-ready. The primary use case for setting this field is for a StatefulSet's Headless Service to propagate SRV DNS records for its Pods for the purpose of peer discovery. The Kubernetes controllers that generate Endpoints and EndpointSlice resources for Services interpret this to mean that all endpoints are considered "ready" even if the Pods themselves are not. Agents which consume only Kubernetes generated endpoints through the Endpoints or EndpointSlice resources can safely assume this behavior.
selector	Map<String,String>	Route service traffic to pods with label keys and values matching this selector. If empty or not present, the service is assumed to have an external process managing its endpoints, which Kubernetes will not modify. Only applies to types ClusterIP, NodePort, and LoadBalancer. Ignored if type is ExternalName. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/">https://kubernetes.io/docs/concepts/services-networking/service/</a>
sessionAffinity	String	Supports "ClientIP" and "None". Used to maintain session affinity. Enable client IP based session affinity. Must be ClientIP or None. Defaults to None. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies">https://kubernetes.io/docs/concepts/services-networking/service/#virtual-ips-and-service-proxies</a>
sessionAffinityConfig	<a href="#">io.k8s.api.core.v1.SessionAffinityConfig</a> object	sessionAffinityConfig contains the configurations of session affinity.

Parameter	Type	Description
topologyKeys	Array of strings	topologyKeys is a preference-order list of topology keys which implementations of services should use to preferentially sort endpoints when accessing this Service, it can not be used at the same time as externalTrafficPolicy=Local. Topology keys must be valid label keys and at most 16 keys may be specified. Endpoints are chosen based on the first topology key with available backends. If this field is specified and all entries have no backends that match the topology of the client, the service has no backends for that client and connections should fail. The special value "*" may be used to mean "any topology". This catch-all value, if used, only makes sense as the last value in the list. If this is not specified or empty, no topology constraints will be applied.
type	String	type determines how the Service is exposed. Defaults to ClusterIP. Valid options are ExternalName, ClusterIP, NodePort, and LoadBalancer. "ExternalName" maps to the specified externalName. "ClusterIP" allocates a cluster-internal IP address for load-balancing to endpoints. Endpoints are determined by the selector or if that is not specified, by manual construction of an Endpoints object. If clusterIP is "None", no virtual IP is allocated and the endpoints are published as a set of endpoints rather than a stable IP. "NodePort" builds on ClusterIP and allocates a port on every node which routes to the clusterIP. "LoadBalancer" builds on NodePort and creates an external load-balancer (if supported in the current cloud) which routes to the clusterIP. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types">https://kubernetes.io/docs/concepts/services-networking/service/#publishing-services-service-types</a>

**Table 5-1753** io.k8s.api.core.v1.ServicePort

Parameter	Type	Description
appProtocol	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Unprefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as mycompany.com/my-custom-protocol. This is a beta field that is guarded by the ServiceAppProtocol feature gate and enabled by default.
name	String	The name of this port within the service. This must be a DNS_LABEL. All ports within a ServiceSpec must have unique names. When considering the endpoints for a Service, this must match the 'name' field in the EndpointPort. Optional if only one ServicePort is defined on this service.
nodePort	Integer	The port on each node on which this service is exposed when type=NodePort or LoadBalancer. Usually assigned by the system. If specified, it will be allocated to the service if unused or else creation of the service will fail. Default is to auto-allocate a port if the ServiceType of this Service requires one. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport">https://kubernetes.io/docs/concepts/services-networking/service/#type-nodeport</a>
port	Integer	The port that will be exposed by this service.
protocol	String	The IP protocol for this port. Supports "TCP", "UDP", and "SCTP". Default is TCP.
targetPort	String	Number or name of the port to access on the pods targeted by the service. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME. If this is a string, it will be looked up as a named port in the target Pod's container ports. If this is not specified, the value of the 'port' field is used (an identity map). This field is ignored for services with clusterIP=None, and should be omitted or set equal to the 'port' field. More info: <a href="https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service">https://kubernetes.io/docs/concepts/services-networking/service/#defining-a-service</a>

**Table 5-1754** io.k8s.api.core.v1.SessionAffinityConfig

Parameter	Type	Description
clientIP	<a href="#">io.k8s.api.core.v1.ClientIPConfig</a> object	clientIP contains the configurations of Client IP based session affinity.

**Table 5-1755** io.k8s.api.core.v1.ClientIPConfig

Parameter	Type	Description
timeoutSeconds	Integer	timeoutSeconds specifies the seconds of ClientIP type session sticky time. The value must be >0 && <=86400(for 1 day) if ServiceAffinity == "ClientIP". Default value is 10800(for 3 hours).

**Table 5-1756** io.k8s.api.core.v1.ServiceStatus

Parameter	Type	Description
loadBalancer	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer, if one is present.

**Table 5-1757** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Type	Description
ingress	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-1758** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Type	Description
hostname	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)

Parameter	Type	Description
ip	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "Service",
  "metadata": {
    "creationTimestamp": "2018-09-04T00:45:36Z",
    "labels": {
      "app": "redis"
    },
    "name": "redis",
    "namespace": "namespace-test",
    "resourceVersion": "5146412",
    "selfLink": "/api/v1/namespaces/namespace-test/services/redis/status",
    "uid": "d6a1ce79-afdb-11e8-b6ef-f898ef6c78b4"
  },
  "spec": {
    "clusterIP": "10.247.212.210",
    "ports": [ {
      "name": "service0",
      "port": 8080,
      "protocol": "TCP",
      "targetPort": 80
    } ],
    "selector": {
      "app": "redis"
    },
    "sessionAffinity": "None",
    "type": "ClusterIP"
  },
  "status": {
    "loadBalancer": { }
  }
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized

Status Code	Description
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.5 Deployment

### 5.5.1 Querying All Deployments

#### Function

This API is used to query all Deployments.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /apis/apps/v1/deployments



**Table 5-1759** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>
pretty	No	String	If 'true', then the output is pretty printed.

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.

## Request Parameters

**Table 5-1760** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-1761** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.apps.v1.Deployment</a> objects	Items is the list of Deployments.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata.

**Table 5-1762** io.k8s.api.apps.v1.Deployment

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object metadata.
spec	<a href="#">io.k8s.api.apps.v1.DeploymentSpec</a> object	Specification of the desired behavior of the Deployment.
status	<a href="#">io.k8s.api.apps.v1.DeploymentStatus</a> object	Most recently observed status of the Deployment.

**Table 5-1763** io.k8s.api.apps.v1.DeploymentSpec

Parameter	Type	Description
minReadySeconds	Integer	Minimum number of seconds for which a newly created pod should be ready without any of its container crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)
paused	Boolean	Indicates that the deployment is paused.
progressDeadlineSeconds	Integer	The maximum time in seconds for a deployment to make progress before it is considered to be failed. The deployment controller will continue to process failed deployments and a condition with a ProgressDeadlineExceeded reason will be surfaced in the deployment status. Note that progress will not be estimated during the time a deployment is paused. Defaults to 600s.
replicas	Integer	Number of desired pods. This is a pointer to distinguish between explicit zero and not specified. Defaults to 1.
revisionHistoryLimit	Integer	The number of old ReplicaSets to retain to allow rollback. This is a pointer to distinguish between explicit zero and not specified. Defaults to 10.

Parameter	Type	Description
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	Label selector for pods. Existing ReplicaSets whose pods are selected by this will be the ones affected by this deployment. It must match the pod template's labels.
strategy	<a href="#">io.k8s.api.apps.v1.DeploymentStrategy</a> object	The deployment strategy to use to replace existing pods with new ones.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Template describes the pods that will be created.

**Table 5-1764** io.k8s.api.apps.v1.DeploymentStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateDeployment</a> object	Rolling update config params. Present only if DeploymentStrategyType = RollingUpdate.
type	String	Type of deployment. Can be "Recreate" or "RollingUpdate". Default is RollingUpdate.

**Table 5-1765** io.k8s.api.apps.v1.RollingUpdateDeployment

Parameter	Type	Description
maxSurge	String	The maximum number of pods that can be scheduled above the desired number of pods. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). This can not be 0 if MaxUnavailable is 0. Absolute number is calculated from percentage by rounding up. Defaults to 25%. Example: when this is set to 30%, the new ReplicaSet can be scaled up immediately when the rolling update starts, such that the total number of old and new pods do not exceed 130% of desired pods. Once old pods have been killed, new ReplicaSet can be scaled up further, ensuring that total number of pods running at any time during the update is at most 130% of desired pods.

Parameter	Type	Description
maxUnavailable	String	The maximum number of pods that can be unavailable during the update. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). Absolute number is calculated from percentage by rounding down. This can not be 0 if MaxSurge is 0. Defaults to 25%. Example: when this is set to 30%, the old ReplicaSet can be scaled down to 70% of desired pods immediately when the rolling update starts. Once new pods are ready, old ReplicaSet can be scaled down further, followed by scaling up the new ReplicaSet, ensuring that the total number of pods available at all times during the update is at least 70% of desired pods.

**Table 5-1766** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1767** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.



Parameter	Type	Description
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAlias</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.

Parameter	Type	Description
hostname	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/reference/generated/kubernetes-api/v1.19/#localobjectreference-v1-io.k8s.api.core.v1">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/reference/generated/kubernetes-api/v1.19/#container-v1-io.k8s.api.core.v1">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/objects/PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-1768** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-1769** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringSchedulingIgnoredDuringExecution affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-1770** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.

Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-1771** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-1772** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-1773** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-1774** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.



**Table 5-1775** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-1776** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-1777** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-1778** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-1779** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-1780** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-1781** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-1782** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-1783** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>



Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-1784** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-1785** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-1786** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-1787** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-1788** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-1789** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-1790** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-1791** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-1792** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-1793** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-1794** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1795** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-1796** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.



Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-1797** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-1798** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-1799** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-1800** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-1801** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-1802** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'. Must not contain '..'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-1803** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-1804** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-1805** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-1806** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1807** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-1808** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-1809** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-1810** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1811** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-1812** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.



**Table 5-1813** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-1814** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-1815** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-1816** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-1817** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-1818** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-1819** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-1820** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.



**Table 5-1821** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-1822** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-1823** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-1824** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-1825** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.
generateName	String	GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.  If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).  Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a>
generation	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1826** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1827** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1828** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>



Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-1829** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-1830** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-1831** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-1832** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-1833** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-1834** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-1835** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-1836** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-1837** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-1838** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-1839** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-1840** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-1841** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-1842** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-1843** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-1844** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk



**Table 5-1845** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-1846** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-1847** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-1848** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-1849** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-1850** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-1851** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-1852** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-1853** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-1854** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-1855** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-1856** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-1857** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-1858** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-1859** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-1860** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.



**Table 5-1861** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-1862** io.k8s.api.apps.v1.DeploymentStatus

Parameter	Type	Description
availableReplicas	Integer	Total number of available pods (ready for at least minReadySeconds) targeted by this deployment.
collisionCount	Integer	Count of hash collisions for the Deployment. The Deployment controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ReplicaSet.
conditions	Array of <a href="#">io.k8s.api.apps.v1.DeploymentCondition</a> objects	Represents the latest available observations of a deployment's current state.
observedGeneration	Long	The generation observed by the deployment controller.
readyReplicas	Integer	Total number of ready pods targeted by this deployment.
replicas	Integer	Total number of non-terminated pods targeted by this deployment (their labels match the selector).
unavailableReplicas	Integer	Total number of unavailable pods targeted by this deployment. This is the total number of pods that are still required for the deployment to have 100% available capacity. They may either be pods that are running but not yet available or pods that still have not been created.

Parameter	Type	Description
updatedReplicas	Integer	Total number of non-terminated pods targeted by this deployment that have the desired template spec.

**Table 5-1863** io.k8s.api.apps.v1.DeploymentCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
lastUpdateTime	String	The last time this condition was updated.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of deployment condition.

**Table 5-1864** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.

Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "extensions/v1beta1",
  "items": [ {
    "metadata": {
      "annotations": {
        "deployment.kubernetes.io/revision": "1",
        "service.protal.kubernetes.io/access-ip": "10.247.51.55:123",
        "service.protal.kubernetes.io/type": "ClusterIP"
      }
    }
  }
]
```

```
},
"creationTimestamp" : "2017-12-09T03:44:24Z",
"generation" : 2,
"labels" : {
  "app" : "nginx"
},
"name" : "nginx",
"namespace" : "default",
"resourceVersion" : "28579",
"selfLink" : "/apis/extensions/v1beta1/namespaces/default/deployments/nginx",
"uid" : "3f7846b5-dc93-11e7-9c19-fa163e2d897b"
},
"spec" : {
  "replicas" : 1,
  "selector" : {
    "matchLabels" : {
      "app" : "nginx"
    }
  },
  "strategy" : {
    "rollingUpdate" : {
      "maxSurge" : 1,
      "maxUnavailable" : 1
    },
    "type" : "RollingUpdate"
  },
  "template" : {
    "metadata" : {
      "creationTimestamp" : null,
      "labels" : {
        "app" : "nginx"
      }
    },
    "spec" : {
      "containers" : [ {
        "image" : "172.16.5.235:20202/test-01/mysql:v1",
        "imagePullPolicy" : "Always",
        "name" : "nginx",
        "resources" : { },
        "terminationMessagePath" : "/dev/termination-log",
        "terminationMessagePolicy" : "File"
      } ],
      "dnsPolicy" : "ClusterFirst",
      "restartPolicy" : "Always",
      "schedulerName" : "default-scheduler",
      "securityContext" : { }
    }
  }
},
"status" : {
  "availableReplicas" : 1,
  "conditions" : [ {
    "lastTransitionTime" : "2017-12-09T03:44:24Z",
    "lastUpdateTime" : "2017-12-09T03:44:24Z",
    "message" : "Deployment has minimum availability.",
    "reason" : "MinimumReplicasAvailable",
    "status" : "True",
    "type" : "Available"
  } ],
  "observedGeneration" : 2,
  "readyReplicas" : 1,
  "replicas" : 1,
  "updatedReplicas" : 1
}, {
  "metadata" : {
    "annotations" : {
      "deployment.kubernetes.io/revision" : "1"
    }
  },

```

```
"creationTimestamp" : "2017-12-13T03:13:22Z",
"generation" : 2,
"labels" : {
  "cce/appgroup" : "deploy-ex-test"
},
"name" : "deploy-ex-12130306",
"namespace" : "ns-12130306-s",
"resourceVersion" : "418771",
"selfLink" : "/apis/extensions/v1beta1/namespaces/ns-12130306-s/deployments/deploy-ex-12130306",
"uid" : "934db57d-dfb3-11e7-9c19-fa163e2d897b"
},
"spec" : {
  "replicas" : 1,
  "selector" : {
    "matchLabels" : {
      "cce/appgroup" : "deploy-ex-test"
    }
  },
  "strategy" : {
    "rollingUpdate" : {
      "maxSurge" : 1,
      "maxUnavailable" : 1
    },
    "type" : "RollingUpdate"
  },
  "template" : {
    "metadata" : {
      "creationTimestamp" : null,
      "labels" : {
        "cce/appgroup" : "deploy-ex-test"
      }
    },
    "spec" : {
      "containers" : [ {
        "image" : "172.16.5.235:20202/test/redis:latest",
        "imagePullPolicy" : "IfNotPresent",
        "name" : "deploycon-12130306",
        "resources" : { },
        "terminationMessagePath" : "/dev/termination-log",
        "terminationMessagePolicy" : "File"
      } ],
      "dnsPolicy" : "ClusterFirst",
      "restartPolicy" : "Always",
      "schedulerName" : "default-scheduler",
      "securityContext" : { }
    }
  },
  "status" : {
    "availableReplicas" : 1,
    "conditions" : [ {
      "lastTransitionTime" : "2017-12-13T03:13:22Z",
      "lastUpdateTime" : "2017-12-13T03:13:22Z",
      "message" : "Deployment has minimum availability.",
      "reason" : "MinimumReplicasAvailable",
      "status" : "True",
      "type" : "Available"
    } ],
    "observedGeneration" : 2,
    "readyReplicas" : 1,
    "replicas" : 1,
    "updatedReplicas" : 1
  }
},
"kind" : "DeploymentList",
"metadata" : {
  "resourceVersion" : "418820",
  "selfLink" : "/apis/extensions/v1beta1/deployments"
```

```
}  
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.5.2 Deleting All Deployments in a Namespace

### Function

This API is used to delete all Deployments in a specified namespace.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /apis/apps/v1/namespaces/{namespace}/deployments

**Table 5-1865** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-1866** Query Parameters

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>



Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset

Parameter	Mandatory	Type	Description
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-1867** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-1868** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-1869** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

Status code: 200

**Table 5-1870** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1871** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1872** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional.  Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"



Parameter	Type	Description
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-1873** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

- Deleting the Deployments (The ReplicaSets and pods are not deleted.)

```
{
  "Kind": "DeleteOptions",
  "apiVersion": "v1",
  "propagationPolicy": "Orphan"
}
```

- Deleting the pods, ReplicaSets, and Deployments

```
{
  "apiVersion": "v1",
  "kind": "DeleteOptions",
  "propagationPolicy": "Foreground"
}
```

- Deleting the Deployments, ReplicaSets, and pods

```
{
  "apiVersion": "v1",
  "kind": "DeleteOptions",
  "propagationPolicy": "Background"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "apps/v1",
  "items": null,
  "kind": "DeploymentList",
  "metadata": {
    "resourceVersion": "5039958",
    "selfLink": "/apis/apps/v1/namespaces/namespace-test/deployments"
  }
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.5.3 Querying Deployments in a Namespace

### Function

This API is used to query the details about all Deployments in a specified namespace.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/apps/v1/namespaces/{namespace}/deployments

**Table 5-1874** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-1875** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

Table 5-1876 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

Table 5-1877 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.apps.v1.Deployment</a> objects	Items is the list of Deployments.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata.



**Table 5-1878** io.k8s.api.apps.v1.Deployment

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object metadata.
spec	<a href="#">io.k8s.api.apps.v1.DeploymentSpec</a> object	Specification of the desired behavior of the Deployment.
status	<a href="#">io.k8s.api.apps.v1.DeploymentStatus</a> object	Most recently observed status of the Deployment.

**Table 5-1879** io.k8s.api.apps.v1.DeploymentSpec

Parameter	Type	Description
minReadySeconds	Integer	Minimum number of seconds for which a newly created pod should be ready without any of its container crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)
paused	Boolean	Indicates that the deployment is paused.

Parameter	Type	Description
progressDeadlineSeconds	Integer	The maximum time in seconds for a deployment to make progress before it is considered to be failed. The deployment controller will continue to process failed deployments and a condition with a ProgressDeadlineExceeded reason will be surfaced in the deployment status. Note that progress will not be estimated during the time a deployment is paused. Defaults to 600s.
replicas	Integer	Number of desired pods. This is a pointer to distinguish between explicit zero and not specified. Defaults to 1.
revisionHistoryLimit	Integer	The number of old ReplicaSets to retain to allow rollback. This is a pointer to distinguish between explicit zero and not specified. Defaults to 10.
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	Label selector for pods. Existing ReplicaSets whose pods are selected by this will be the ones affected by this deployment. It must match the pod template's labels.
strategy	<a href="#">io.k8s.api.apps.v1.DeploymentStrategy</a> object	The deployment strategy to use to replace existing pods with new ones.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Template describes the pods that will be created.

**Table 5-1880** io.k8s.api.apps.v1.DeploymentStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateDeployment</a> object	Rolling update config params. Present only if DeploymentStrategyType = RollingUpdate.
type	String	Type of deployment. Can be "Recreate" or "RollingUpdate". Default is RollingUpdate.

**Table 5-1881** io.k8s.api.apps.v1.RollingUpdateDeployment

Parameter	Type	Description
maxSurge	String	The maximum number of pods that can be scheduled above the desired number of pods. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). This can not be 0 if MaxUnavailable is 0. Absolute number is calculated from percentage by rounding up. Defaults to 25%. Example: when this is set to 30%, the new ReplicaSet can be scaled up immediately when the rolling update starts, such that the total number of old and new pods do not exceed 130% of desired pods. Once old pods have been killed, new ReplicaSet can be scaled up further, ensuring that total number of pods running at any time during the update is at most 130% of desired pods.
maxUnavailable	String	The maximum number of pods that can be unavailable during the update. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). Absolute number is calculated from percentage by rounding down. This can not be 0 if MaxSurge is 0. Defaults to 25%. Example: when this is set to 30%, the old ReplicaSet can be scaled down to 70% of desired pods immediately when the rolling update starts. Once new pods are ready, old ReplicaSet can be scaled down further, followed by scaling up the new ReplicaSet, ensuring that the total number of pods available at all times during the update is at least 70% of desired pods.

**Table 5-1882** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1883** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.

Parameter	Type	Description
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>

Parameter	Type	Description
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.

Parameter	Type	Description
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://github.com/kubernetes/api/blob/master/core/v1/pod_readiness_gate.go">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="https://github.com/kubernetes/api/blob/master/core/v1/pod_security_context.go">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.

Parameter	Type	Description
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="https://kubernetes.io/api-references/api/v1/#toleration">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.



Parameter	Type	Description
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-1884** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-1885** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-1886** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-1887** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-1888** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-1889** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-1890** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-1891** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-1892** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-1893** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-1894** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-1895** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-1896** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.



Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-1897** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-1898** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-1899** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-1900** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-1901** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-1902** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-1903** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-1904** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-1905** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-1906** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-1907** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-1908** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.



Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-1909** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-1910** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1911** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-1912** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-1913** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-1914** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-1915** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-1916** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-1917** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-1918** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-1919** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-1920** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-1921** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-1922** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1923** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.



**Table 5-1924** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-1925** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-1926** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-1927** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-1928** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-1929** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-1930** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-1931** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared



Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-1932** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-1933** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-1934** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-1935** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-1936** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-1937** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-1938** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-1939** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-1940** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-1941** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>



Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1942** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-1943** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-1944** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-1945** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-1946** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-1947** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-1948** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-1949** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-1950** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-1951** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-1952** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-1953** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-1954** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-1955** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>



Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-1956** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-1957** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-1958** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-1959** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-1960** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-1961** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-1962** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-1963** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-1964** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-1965** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-1966** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-1967** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-1968** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-1969** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-1970** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-1971** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-1972** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>



Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-1973** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-1974** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-1975** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-1976** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-1977** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-1978** io.k8s.api.apps.v1.DeploymentStatus

Parameter	Type	Description
availableReplicas	Integer	Total number of available pods (ready for at least minReadySeconds) targeted by this deployment.
collisionCount	Integer	Count of hash collisions for the Deployment. The Deployment controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ReplicaSet.
conditions	Array of <a href="#">io.k8s.api.apps.v1.DeploymentCondition</a> objects	Represents the latest available observations of a deployment's current state.
observedGeneration	Long	The generation observed by the deployment controller.
readyReplicas	Integer	Total number of ready pods targeted by this deployment.
replicas	Integer	Total number of non-terminated pods targeted by this deployment (their labels match the selector).
unavailableReplicas	Integer	Total number of unavailable pods targeted by this deployment. This is the total number of pods that are still required for the deployment to have 100% available capacity. They may either be pods that are running but not yet available or pods that still have not been created.

Parameter	Type	Description
updatedReplicas	Integer	Total number of non-terminated pods targeted by this deployment that have the desired template spec.

**Table 5-1979** io.k8s.api.apps.v1.DeploymentCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
lastUpdateTime	String	The last time this condition was updated.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of deployment condition.

**Table 5-1980** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.

Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "apps/v1",
  "items": [ {
    "metadata": {
      "annotations": {
        "deployment.kubernetes.io/revision": "1"
      }
    },
    "creationTimestamp": "2018-09-03T12:58:07Z",
```

```
"generation" : 1,
"labels" : {
  "app" : "redis"
},
"name" : "deployment-test",
"namespace" : "namespace-test",
"resourceVersion" : "5036888",
"selfLink" : "/apis/apps/v1/namespaces/namespace-test/deployments/deployment-test",
"uid" : "010506c7-af79-11e8-b6ef-f898ef6c78b4"
},
"spec" : {
  "progressDeadlineSeconds" : 600,
  "replicas" : 1,
  "revisionHistoryLimit" : 2,
  "selector" : {
    "matchLabels" : {
      "app" : "redis"
    }
  },
  "strategy" : {
    "rollingUpdate" : {
      "maxSurge" : "25%",
      "maxUnavailable" : "25%"
    },
    "type" : "RollingUpdate"
  },
  "template" : {
    "metadata" : {
      "annotations" : {
        "cri.cci.io/container-type" : "secure-container"
      },
      "creationTimestamp" : null,
      "labels" : {
        "app" : "redis"
      }
    },
    "spec" : {
      "containers" : [ {
        "image" : "redis",
        "imagePullPolicy" : "IfNotPresent",
        "name" : "container-0",
        "resources" : {
          "limits" : {
            "cpu" : "500m",
            "memory" : "1Gi"
          },
          "requests" : {
            "cpu" : "500m",
            "memory" : "1Gi"
          }
        }
      } ],
      "terminationMessagePath" : "/dev/termination-log",
      "terminationMessagePolicy" : "File"
    },
    "dnsPolicy" : "ClusterFirst",
    "imagePullSecrets" : [ {
      "name" : "imagepull-secret"
    } ],
    "restartPolicy" : "Always",
    "schedulerName" : "default-scheduler",
    "securityContext" : { }
  }
},
"status" : {
  "availableReplicas" : 1,
  "conditions" : [ {
    "lastTransitionTime" : "2018-09-03T12:58:12Z",
    "lastUpdateTime" : "2018-09-03T12:58:12Z",
```

```

"message" : "Deployment has minimum availability.",
"reason" : "MinimumReplicasAvailable",
"status" : "True",
"type" : "Available"
}, {
"lastTransitionTime" : "2018-09-03T12:58:07Z",
"lastUpdateTime" : "2018-09-03T12:58:12Z",
"message" : "ReplicaSet \"deployment-test-57f7cff77c\" has successfully\rprogressed.",
"reason" : "NewReplicaSetAvailable",
"status" : "True",
"type" : "Progressing"
}],
"observedGeneration" : 1,
"readyReplicas" : 1,
"replicas" : 1,
"updatedReplicas" : 1
}
}],
"kind" : "DeploymentList",
"metadata" : {
"resourceVersion" : "5038849",
"selfLink" : "/apis/apps/v1/namespaces/namespace-test/deployments"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout



## 5.5.4 Creating a Deployment

### Function

This API is used to create a Deployment.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /apis/apps/v1/namespaces/{namespace}/deployments

**Table 5-1981** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-1982** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-1983** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-1984** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object metadata.

Parameter	Mandatory	Type	Description
spec	No	<a href="#">io.k8s.api.apps.v1.DeploymentSpec</a> object	Specification of the desired behavior of the Deployment.
status	No	<a href="#">io.k8s.api.apps.v1.DeploymentStatus</a> object	Most recently observed status of the Deployment.

**Table 5-1985** io.k8s.api.apps.v1.DeploymentSpec

Parameter	Mandatory	Type	Description
minReadySeconds	No	Integer	Minimum number of seconds for which a newly created pod should be ready without any of its container crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)
paused	No	Boolean	Indicates that the deployment is paused.
progressDeadlineSeconds	No	Integer	The maximum time in seconds for a deployment to make progress before it is considered to be failed. The deployment controller will continue to process failed deployments and a condition with a ProgressDeadlineExceeded reason will be surfaced in the deployment status. Note that progress will not be estimated during the time a deployment is paused. Defaults to 600s.
replicas	No	Integer	Number of desired pods. This is a pointer to distinguish between explicit zero and not specified. Defaults to 1.
revisionHistoryLimit	No	Integer	The number of old ReplicaSets to retain to allow rollback. This is a pointer to distinguish between explicit zero and not specified. Defaults to 10.

Parameter	Mandatory	Type	Description
selector	Yes	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	Label selector for pods. Existing ReplicaSets whose pods are selected by this will be the ones affected by this deployment. It must match the pod template's labels.
strategy	No	<a href="#">io.k8s.api.apps.v1.DeploymentStrategy</a> object	The deployment strategy to use to replace existing pods with new ones.
template	Yes	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Template describes the pods that will be created.

**Table 5-1986** io.k8s.api.apps.v1.DeploymentStrategy

Parameter	Mandatory	Type	Description
rollingUpdate	No	<a href="#">io.k8s.api.apps.v1.RollingUpdateDeployment</a> object	Rolling update config params. Present only if DeploymentStrategyType = RollingUpdate.
type	No	String	Type of deployment. Can be "Recreate" or "RollingUpdate". Default is RollingUpdate.

**Table 5-1987** io.k8s.api.apps.v1.RollingUpdateDeployment

Parameter	Mandatory	Type	Description
maxSurge	No	String	The maximum number of pods that can be scheduled above the desired number of pods. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). This can not be 0 if MaxUnavailable is 0. Absolute number is calculated from percentage by rounding up. Defaults to 25%. Example: when this is set to 30%, the new ReplicaSet can be scaled up immediately when the rolling update starts, such that the total number of old and new pods do not exceed 130% of desired pods. Once old pods have been killed, new ReplicaSet can be scaled up further, ensuring that total number of pods running at any time during the update is at most 130% of desired pods.
maxUnavailable	No	String	The maximum number of pods that can be unavailable during the update. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). Absolute number is calculated from percentage by rounding down. This can not be 0 if MaxSurge is 0. Defaults to 25%. Example: when this is set to 30%, the old ReplicaSet can be scaled down to 70% of desired pods immediately when the rolling update starts. Once new pods are ready, old ReplicaSet can be scaled down further, followed by scaling up the new ReplicaSet, ensuring that the total number of pods available at all times during the update is at least 70% of desired pods.

**Table 5-1988** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Mandatory	Type	Description
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-1989** io.k8s.api.core.v1.PodSpec

Parameter	Mandatory	Type	Description
activeDeadlineSeconds	No	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	No	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	No	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Yes	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	No	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.

Parameter	Mandatory	Type	Description
dnsPolicy	No	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	No	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	No	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	No	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	No	Boolean	Use the host's ipc namespace. Optional: Default to false.

Parameter	Mandatory	Type	Description
hostNetwork	No	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	No	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	No	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	No	Array of <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod</a>



Parameter	Mandatory	Type	Description
initContainers	No	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	No	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	No	Map<String,String>	nodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Mandatory	Type	Description
overhead	No	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	No	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.

Parameter	Mandatory	Type	Description
priority	No	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	No	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	No	Array of <a href="https://kubernetes.io/api-references/api/v1/#pod-readiness-gate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	No	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>

Parameter	Mandatory	Type	Description
runtimeClassName	No	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	No	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	No	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	No	String	DeprecatedServiceAccount is a depreciated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	No	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>

Parameter	Mandatory	Type	Description
setHostnameAsFQDN	No	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	No	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	No	String	If specified, the fully qualified Pod hostname will be "[hostname]/[subdomain]". If not specified, the pod will not have a domainname at all.

Parameter	Mandatory	Type	Description
terminationGracePeriodSeconds	No	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	No	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	No	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	No	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-1990** io.k8s.api.core.v1.Affinity

Parameter	Mandatory	Type	Description
nodeAffinity	No	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Mandatory	Type	Description
podAffinity	No	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	No	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-1991** io.k8s.api.core.v1.NodeAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Mandatory	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	No	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-1992** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Mandatory	Type	Description
preference	Yes	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Yes	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-1993** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	No	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.



**Table 5-1994** io.k8s.api.core.v1.NodeSelector

Parameter	Mandatory	Type	Description
nodeSelectorTerms	Yes	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-1995** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	The label key that the selector applies to.
operator	Yes	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist, Gt, and Lt.
values	No	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-1996** io.k8s.api.core.v1.PodAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-1997** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-1998** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Mandatory	Type	Description
podAffinityTerm	Yes	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Yes	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-1999** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Mandatory	Type	Description
labelSelector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	No	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	Yes	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-2000** io.k8s.api.core.v1.PodDNSConfig

Parameter	Mandatory	Type	Description
nameservers	No	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	No	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	No	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-2001** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Mandatory	Type	Description
name	No	String	Required.
value	No	String	value is the value of the option

**Table 5-2002** io.k8s.api.core.v1.EphemeralContainer

Parameter	Mandatory	Type	Description
args	No	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	No	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	No	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.

Parameter	Mandatory	Type	Description
envFrom	No	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	No	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	No	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	No	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	Yes	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	No	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.

Parameter	Mandatory	Type	Description
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	No	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	No	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	No	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false



Parameter	Mandatory	Type	Description
targetContainerName	No	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	No	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	No	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	No	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Mandatory	Type	Description
volumeDevices	No	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	No	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	No	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2003** io.k8s.api.core.v1.HostAlias

Parameter	Mandatory	Type	Description
hostnames	No	Array of strings	Hostnames for the above IP address.
ip	No	String	IP address of the host file entry.

**Table 5-2004** io.k8s.api.core.v1.LocalObjectReference

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-2005** io.k8s.api.core.v1.Container

Parameter	Mandatory	Type	Description
args	No	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	No	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	No	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.

Parameter	Mandatory	Type	Description
envFrom	No	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	No	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	No	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	No	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	No	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>
securityContext	No	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>

Parameter	Mandatory	Type	Description
startupProbe	No	<a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	No	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	No	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false

Parameter	Mandatory	Type	Description
terminationMessagePath	No	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	No	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	No	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	No	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	No	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.

Parameter	Mandatory	Type	Description
workingDir	No	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2006** io.k8s.api.core.v1.EnvVar

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	No	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".
valueFrom	No	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-2007** io.k8s.api.core.v1.EnvVarSource

Parameter	Mandatory	Type	Description
configMapKeyRef	No	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.



Parameter	Mandatory	Type	Description
fieldRef	No	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports metadata.name, metadata.namespace, <i>metadata.labels['&lt;KEY&gt;']</i> , <i>metadata.annotations['&lt;KEY&gt;']</i> , spec.nodeName, spec.serviceAccountName, status.hostIP, status.podIP, status.podIPs.
resourceFieldRef	No	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	No	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-2008** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Mandatory	Type	Description
key	Yes	String	The key to select.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-2009** io.k8s.api.core.v1.SecretKeySelector

Parameter	Mandatory	Type	Description
key	Yes	String	The key of the secret to select from. Must be a valid secret key.

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret or its key must be defined

**Table 5-2010** io.k8s.api.core.v1.EnvFromSource

Parameter	Mandatory	Type	Description
configMapRef	No	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	No	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	No	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-2011** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap must be defined

**Table 5-2012** io.k8s.api.core.v1.SecretEnvSource

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret must be defined

**Table 5-2013** io.k8s.api.core.v1.Lifecycle

Parameter	Mandatory	Type	Description
postStart	No	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

Parameter	Mandatory	Type	Description
preStop	No	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-2014** io.k8s.api.core.v1.Handler

Parameter	Mandatory	Type	Description
exec	No	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	No	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
tcpSocket	No	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-2015** io.k8s.api.core.v1.ContainerPort

Parameter	Mandatory	Type	Description
containerPort	Yes	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	No	String	What host IP to bind the external port to.
hostPort	No	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	No	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	No	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-2016** io.k8s.api.core.v1.SecurityContext

Parameter	Mandatory	Type	Description
allowPrivilegeEscalation	No	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN

Parameter	Mandatory	Type	Description
capabilities	No	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	No	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.
procMount	No	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	No	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	No	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

Parameter	Mandatory	Type	Description
runAsUser	No	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	No	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	No	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.
windowsOptions	No	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2017** io.k8s.api.core.v1.Capabilities

Parameter	Mandatory	Type	Description
add	No	Array of strings	Added capabilities
drop	No	Array of strings	Removed capabilities

**Table 5-2018** io.k8s.api.core.v1.Probe

Parameter	Mandatory	Type	Description
exec	No	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	No	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	No	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	No	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	No	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	No	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.
tcpSocket	No	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	No	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>



**Table 5-2019** io.k8s.api.core.v1.ExecAction

Parameter	Mandatory	Type	Description
command	No	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-2020** io.k8s.api.core.v1.HTTPGetAction

Parameter	Mandatory	Type	Description
host	No	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	No	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	No	String	Path to access on the HTTP server.
port	Yes	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	No	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-2021** io.k8s.api.core.v1.HTTPHeader

Parameter	Mandatory	Type	Description
name	Yes	String	The header field name

Parameter	Mandatory	Type	Description
value	Yes	String	The header field value

**Table 5-2022** io.k8s.api.core.v1.TCPSocketAction

Parameter	Mandatory	Type	Description
host	No	String	Optional: Host name to connect to, defaults to the pod IP.
port	Yes	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-2023** io.k8s.api.core.v1.VolumeDevice

Parameter	Mandatory	Type	Description
devicePath	Yes	String	devicePath is the path inside of the container that the device will be mapped to.
name	Yes	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-2024** io.k8s.api.core.v1.VolumeMount

Parameter	Mandatory	Type	Description
extendPathMode	No	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	Yes	String	Path within the container at which the volume should be mounted. Must not contain ':

Parameter	Mandatory	Type	Description
mountPropagation	No	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	Yes	String	This must match the Name of a Volume.
policy	No	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	No	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	No	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	No	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$ (VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-2025** io.k8s.api.core.v1.Policy

Parameter	Mandatory	Type	Description
logs	No	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-2026** io.k8s.api.core.v1.Logs

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations for log.
rotate	Yes	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-2027** io.k8s.api.core.v1.PodReadinessGate

Parameter	Mandatory	Type	Description
conditionType	Yes	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-2028** io.k8s.api.core.v1.PodSecurityContext

Parameter	Mandatory	Type	Description
fsGroup	No	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>

Parameter	Mandatory	Type	Description
fsGroupChangePolicy	No	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	No	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

Parameter	Mandatory	Type	Description
runAsUser	No	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seLinuxOptions	No	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	No	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	No	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	No	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	No	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2029** io.k8s.api.core.v1.SELinuxOptions

Parameter	Mandatory	Type	Description
level	No	String	Level is SELinux level label that applies to the container.
role	No	String	Role is a SELinux role label that applies to the container.
type	No	String	Type is a SELinux type label that applies to the container.
user	No	String	User is a SELinux user label that applies to the container.

**Table 5-2030** io.k8s.api.core.v1.SeccompProfile

Parameter	Mandatory	Type	Description
localhostProfile	No	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	Yes	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-2031** io.k8s.api.core.v1.Sysctl

Parameter	Mandatory	Type	Description
name	Yes	String	Name of a property to set
value	Yes	String	Value of a property to set

**Table 5-2032** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Mandatory	Type	Description
gmsaCredentialSpec	No	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	No	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	No	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2033** io.k8s.api.core.v1.Toleration

Parameter	Mandatory	Type	Description
effect	No	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	No	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.



Parameter	Mandatory	Type	Description
operator	No	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	No	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	No	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-2034** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Mandatory	Type	Description
labelSelector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Mandatory	Type	Description
maxSkew	Yes	Integer	<p>MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i>, it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3     P   P     - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1 (zone2) would make the ActualSkew(2-0) on zone1 (zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i>, it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.</p>
topologyKey	Yes	String	<p>TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each &lt;key, value&gt; as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.</p>

Parameter	Mandatory	Type	Description
whenUnsatisfiable	Yes	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3     P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-2035** io.k8s.api.core.v1.Volume

Parameter	Mandatory	Type	Description
awsElasticBlockStore	No	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

Parameter	Mandatory	Type	Description
azureDisk	No	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	No	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	No	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	No	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	No	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	No	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	No	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	No	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Mandatory	Type	Description
ephemeral	No	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	No	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	<p>FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.</p>
flexVolume	No	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	<p>FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.</p>

Parameter	Mandatory	Type	Description
flocker	No	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	No	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
gitRepo	No	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	No	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	No	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	No	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>

Parameter	Mandatory	Type	Description
localDir	No	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	Yes	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	No	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	No	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine
portworxVolume	No	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	No	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	No	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime

Parameter	Mandatory	Type	Description
rbd	No	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	No	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	No	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	No	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	No	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-2036** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>



Parameter	Mandatory	Type	Description
partition	No	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	No	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	Yes	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-2037** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Mandatory	Type	Description
cachingMode	No	String	Host Caching mode: None, Read Only, Read Write.
diskName	Yes	String	The Name of the data disk in the blob storage
diskURI	Yes	String	The URI the data disk in the blob storage
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.

Parameter	Mandatory	Type	Description
kind	No	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-2038** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	Yes	String	the name of secret that contains Azure Storage Account Name and Key
shareName	Yes	String	Share Name

**Table 5-2039** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Mandatory	Type	Description
monitors	Yes	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	No	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	No	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a>	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	No	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-2040** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

Parameter	Mandatory	Type	Description
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	Yes	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-2041** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-2042** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Mandatory	Type	Description
driver	Yes	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	No	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	No	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Mandatory	Type	Description
volumeAttributes	No	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-2043** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	No	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-2044** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Mandatory	Type	Description
medium	No	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	No	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-2045** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Mandatory	Type	Description
volumeClaimTemplate	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>



**Table 5-2046** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Mandatory	Type	Description
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	Yes	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-2047** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Mandatory	Type	Description
creationTimestamp	No	String	<p>CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.</p> <p>Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>
deletionGracePeriodSeconds	No	Long	<p>Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.</p>

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-2048** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'



**Table 5-2049** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2050** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Mandatory	Type	Description
dataSource	No	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	No	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>

Parameter	Mandatory	Type	Description
volumeMode	No	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	No	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-2051** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Mandatory	Type	Description
apiGroup	No	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	Yes	String	Kind is the type of resource being referenced
name	Yes	String	Name is the name of resource being referenced

**Table 5-2052** io.k8s.api.core.v1.ResourceRequirements

Parameter	Mandatory	Type	Description
limits	No	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Mandatory	Type	Description
requests	No	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-2053** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	No	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-2054** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	key is the label key that the selector applies to.
operator	Yes	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.

Parameter	Mandatory	Type	Description
values	No	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-2055** io.k8s.api.core.v1.FCVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	No	Integer	Optional: FC target lun number
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	No	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	No	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-2056** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Mandatory	Type	Description
driver	Yes	String	Driver is the name of the driver to use for this volume.

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	No	Map<String,String>	Optional: Extra command options if any.
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-2057** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Mandatory	Type	Description
datasetName	No	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	No	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-2058** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	No	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	Yes	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-2059** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Mandatory	Type	Description
directory	No	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	Yes	String	Repository URL
revision	No	String	Commit hash for the specified revision.

**Table 5-2060** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Mandatory	Type	Description
endpoints	Yes	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	Yes	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	No	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>



**Table 5-2061** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Mandatory	Type	Description
path	Yes	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
type	No	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-2062** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Mandatory	Type	Description
chapAuthDiscovery	No	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	No	Boolean	whether support iSCSI Session CHAP authentication
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	No	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br):[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) will be created for the connection.
iqn	Yes	String	Target iSCSI Qualified Name.

Parameter	Mandatory	Type	Description
iscsiInterface	No	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Yes	Integer	iSCSI Target Lun number.
portals	No	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	No	<a href="https://kubernetes.io/docs/reference/generated/kubernetes-api/v1.27/#localobjectreference-v1-io-k8s-api">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	Yes	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-2063** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Mandatory	Type	Description
sizeLimit	No	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) (Note that [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) may be empty, from the "" case in [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= 0   1   ...   9 [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).   .[/topic/body/section/</p>

Parameter	Mandatory	Type	Description
			<p>table/tgroup/tbody/row/entry/p/br {""} (br) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= "+"   "-" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= "e" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   "E" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2^63-1</p>

Parameter	Mandatory	Type	Description
			<p>in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that will cause implementors to also use a fixed point implementation.</p>

**Table 5-2064** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Mandatory	Type	Description
path	Yes	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	No	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	Yes	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-2065** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Mandatory	Type	Description
claimName	Yes	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	No	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-2066** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	Yes	String	ID that identifies Photon Controller persistent disk

**Table 5-2067** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	FSType represents the filesystem type to mount Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	Yes	String	VolumeID uniquely identifies a Portworx volume

**Table 5-2068** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Yes	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-2069** io.k8s.api.core.v1.VolumeProjection

Parameter	Mandatory	Type	Description
configMap	No	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	No	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project
secret	No	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	No	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project



**Table 5-2070** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-2071** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-2072** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Mandatory	Type	Description
fieldRef	No	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.

Parameter	Mandatory	Type	Description
mode	No	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	Yes	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	No	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-2073** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Mandatory	Type	Description
apiVersion	No	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	Yes	String	Path of the field to select in the specified API version.

**Table 5-2074** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Mandatory	Type	Description
containerName	No	String	Container name: required for volumes, optional for env vars

Parameter	Mandatory	Type	Description
divisor	No	String	Specifies the output format of the exposed resources, defaults to "1"
resource	Yes	String	Required: resource to select

**Table 5-2075** io.k8s.api.core.v1.SecretProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret or its key must be defined

**Table 5-2076** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Mandatory	Type	Description
audience	No	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	No	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	Yes	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-2077** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Mandatory	Type	Description
group	No	String	Group to map volume access to Default is no group
readOnly	No	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	Yes	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes

Parameter	Mandatory	Type	Description
tenant	No	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	No	String	User to map volume access to Defaults to serviceaccount user
volume	Yes	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-2078** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	Yes	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	No	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Yes	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
pool	No	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	No	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-2079** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	Yes	String	The host address of the ScaleIO API Gateway.
protectionDomain	No	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	Yes	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	No	Boolean	Flag to enable/disable SSL communication with Gateway, default false

Parameter	Mandatory	Type	Description
storageMode	No	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	No	String	The ScaleIO Storage Pool associated with the protection domain.
system	Yes	String	The name of the storage system as configured in ScaleIO.
volumeName	No	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-2080** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.

Parameter	Mandatory	Type	Description
items	No	Array of <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	No	Boolean	Specify whether the Secret or its keys must be defined
secretName	No	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-2081** io.k8s.api.core.v1.KeyToPath

Parameter	Mandatory	Type	Description
key	Yes	String	The key to project.
mode	No	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.



Parameter	Mandatory	Type	Description
path	Yes	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-2082** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	No	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.

Parameter	Mandatory	Type	Description
volumeNamespace	No	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-2083** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	No	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	No	String	Storage Policy Based Management (SPBM) profile name.
volumePath	Yes	String	Path that identifies vSphere volume vmdk

**Table 5-2084** io.k8s.api.apps.v1.DeploymentStatus

Parameter	Mandatory	Type	Description
availableReplicas	No	Integer	Total number of available pods (ready for at least minReadySeconds) targeted by this deployment.

Parameter	Mandatory	Type	Description
collisionCount	No	Integer	Count of hash collisions for the Deployment. The Deployment controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ReplicaSet.
conditions	No	Array of <a href="#">io.k8s.api.apps.v1.DeploymentCondition</a> objects	Represents the latest available observations of a deployment's current state.
observedGeneration	No	Long	The generation observed by the deployment controller.
readyReplicas	No	Integer	Total number of ready pods targeted by this deployment.
replicas	No	Integer	Total number of non-terminated pods targeted by this deployment (their labels match the selector).
unavailableReplicas	No	Integer	Total number of unavailable pods targeted by this deployment. This is the total number of pods that are still required for the deployment to have 100% available capacity. They may either be pods that are running but not yet available or pods that still have not been created.
updatedReplicas	No	Integer	Total number of non-terminated pods targeted by this deployment that have the desired template spec.

**Table 5-2085** io.k8s.api.apps.v1.DeploymentCondition

Parameter	Mandatory	Type	Description
lastTransitionTime	No	String	Last time the condition transitioned from one status to another.
lastUpdateTime	No	String	The last time this condition was updated.

Parameter	Mandatory	Type	Description
message	No	String	A human readable message indicating details about the transition.
reason	No	String	The reason for the condition's last transition.
status	Yes	String	Status of the condition, one of True, False, Unknown.
type	Yes	String	Type of deployment condition.

## Response Parameters

Status code: 200

Table 5-2086 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object metadata.
spec	<a href="#">io.k8s.api.apps.v1.DeploymentSpec</a> object	Specification of the desired behavior of the Deployment.
status	<a href="#">io.k8s.api.apps.v1.DeploymentStatus</a> object	Most recently observed status of the Deployment.

**Table 5-2087** io.k8s.api.apps.v1.DeploymentSpec

Parameter	Type	Description
minReadySeconds	Integer	Minimum number of seconds for which a newly created pod should be ready without any of its container crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)
paused	Boolean	Indicates that the deployment is paused.
progressDeadlineSeconds	Integer	The maximum time in seconds for a deployment to make progress before it is considered to be failed. The deployment controller will continue to process failed deployments and a condition with a ProgressDeadlineExceeded reason will be surfaced in the deployment status. Note that progress will not be estimated during the time a deployment is paused. Defaults to 600s.
replicas	Integer	Number of desired pods. This is a pointer to distinguish between explicit zero and not specified. Defaults to 1.
revisionHistoryLimit	Integer	The number of old ReplicaSets to retain to allow rollback. This is a pointer to distinguish between explicit zero and not specified. Defaults to 10.
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	Label selector for pods. Existing ReplicaSets whose pods are selected by this will be the ones affected by this deployment. It must match the pod template's labels.
strategy	<a href="#">io.k8s.api.apps.v1.DeploymentStrategy</a> object	The deployment strategy to use to replace existing pods with new ones.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Template describes the pods that will be created.

**Table 5-2088** io.k8s.api.apps.v1.DeploymentStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateDeployment</a> object	Rolling update config params. Present only if DeploymentStrategyType = RollingUpdate.
type	String	Type of deployment. Can be "Recreate" or "RollingUpdate". Default is RollingUpdate.

**Table 5-2089** io.k8s.api.apps.v1.RollingUpdateDeployment

Parameter	Type	Description
maxSurge	String	The maximum number of pods that can be scheduled above the desired number of pods. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). This can not be 0 if MaxUnavailable is 0. Absolute number is calculated from percentage by rounding up. Defaults to 25%. Example: when this is set to 30%, the new ReplicaSet can be scaled up immediately when the rolling update starts, such that the total number of old and new pods do not exceed 130% of desired pods. Once old pods have been killed, new ReplicaSet can be scaled up further, ensuring that total number of pods running at any time during the update is at most 130% of desired pods.
maxUnavailable	String	The maximum number of pods that can be unavailable during the update. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). Absolute number is calculated from percentage by rounding down. This can not be 0 if MaxSurge is 0. Defaults to 25%. Example: when this is set to 30%, the old ReplicaSet can be scaled down to 70% of desired pods immediately when the rolling update starts. Once new pods are ready, old ReplicaSet can be scaled down further, followed by scaling up the new ReplicaSet, ensuring that the total number of pods available at all times during the update is at least 70% of desired pods.

**Table 5-2090** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-2091** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.

Parameter	Type	Description
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>



Parameter	Type	Description
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	nodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/objects/PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "[topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).[topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).[topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).svc.[topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-2092** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-2093** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-2094** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-2095** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-2096** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-2097** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-2098** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-2099** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-2100** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.



**Table 5-2101** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-2102** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-2103** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-2104** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2105** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-2106** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-2107** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.



Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2108** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-2109** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-2110** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-2111** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-2112** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-2113** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-2114** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-2115** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-2116** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-2117** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-2118** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2119** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-2120** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCP socket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-2121** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-2122** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.



**Table 5-2123** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-2124** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-2125** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-2126** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'. Must not contain '..'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-2127** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-2128** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-2129** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-2130** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>
fsGroupChangePolicy	String	<p>fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".</p>
runAsGroup	Long	<p>The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>
runAsNonRoot	Boolean	<p>Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.</p>
runAsUser	Long	<p>The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2131** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-2132** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-2133** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-2134** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2135** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-2136** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-2137** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>



Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-2138** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-2139** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-2140** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-2141** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-2142** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-2143** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-2144** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-2145** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-2146** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-2147** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).



Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-2148** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-2149** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-2150** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-2151** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2152** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-2153** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.



Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-2154** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-2155** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-2156** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-2157** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-2158** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-2159** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-2160** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-2161** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-2162** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-2163** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-2164** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br):[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).



Parameter	Type	Description
		<p>tbody/row/entry/p/br {""}) (br) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br) ::= "e" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br)   "E" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br)</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that will cause implementors to also use a fixed point implementation.</p>

**Table 5-2166** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-2167** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-2168** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-2169** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.



Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-2170** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-2171** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project

Parameter	Type	Description
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountProjection</a> object	information about the serviceAccountToken data to project

**Table 5-2172** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-2173** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-2174** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-2175** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-2176** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-2177** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-2178** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-2179** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-2180** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-2181** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-2182** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-2183** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-2184** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.



**Table 5-2185** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-2186** io.k8s.api.apps.v1.DeploymentStatus

Parameter	Type	Description
availableReplicas	Integer	Total number of available pods (ready for at least minReadySeconds) targeted by this deployment.
collisionCount	Integer	Count of hash collisions for the Deployment. The Deployment controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ReplicaSet.
conditions	Array of <a href="#">io.k8s.api.apps.v1.DeploymentCondition</a> objects	Represents the latest available observations of a deployment's current state.
observedGeneration	Long	The generation observed by the deployment controller.
readyReplicas	Integer	Total number of ready pods targeted by this deployment.
replicas	Integer	Total number of non-terminated pods targeted by this deployment (their labels match the selector).
unavailableReplicas	Integer	Total number of unavailable pods targeted by this deployment. This is the total number of pods that are still required for the deployment to have 100% available capacity. They may either be pods that are running but not yet available or pods that still have not been created.

Parameter	Type	Description
updatedReplicas	Integer	Total number of non-terminated pods targeted by this deployment that have the desired template spec.

**Table 5-2187** io.k8s.api.apps.v1.DeploymentCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
lastUpdateTime	String	The last time this condition was updated.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of deployment condition.

**Status code: 201**

**Table 5-2188** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object metadata.
spec	<a href="#">io.k8s.api.apps.v1.DeploymentSpec</a> object	Specification of the desired behavior of the Deployment.
status	<a href="#">io.k8s.api.apps.v1.DeploymentStatus</a> object	Most recently observed status of the Deployment.

**Table 5-2189** io.k8s.api.apps.v1.DeploymentSpec

Parameter	Type	Description
minReadySeconds	Integer	Minimum number of seconds for which a newly created pod should be ready without any of its container crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)
paused	Boolean	Indicates that the deployment is paused.
progressDeadlineSeconds	Integer	The maximum time in seconds for a deployment to make progress before it is considered to be failed. The deployment controller will continue to process failed deployments and a condition with a ProgressDeadlineExceeded reason will be surfaced in the deployment status. Note that progress will not be estimated during the time a deployment is paused. Defaults to 600s.
replicas	Integer	Number of desired pods. This is a pointer to distinguish between explicit zero and not specified. Defaults to 1.
revisionHistoryLimit	Integer	The number of old ReplicaSets to retain to allow rollback. This is a pointer to distinguish between explicit zero and not specified. Defaults to 10.

Parameter	Type	Description
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	Label selector for pods. Existing ReplicaSets whose pods are selected by this will be the ones affected by this deployment. It must match the pod template's labels.
strategy	<a href="#">io.k8s.api.apps.v1.DeploymentStrategy</a> object	The deployment strategy to use to replace existing pods with new ones.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Template describes the pods that will be created.

**Table 5-2190** io.k8s.api.apps.v1.DeploymentStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateDeployment</a> object	Rolling update config params. Present only if DeploymentStrategyType = RollingUpdate.
type	String	Type of deployment. Can be "Recreate" or "RollingUpdate". Default is RollingUpdate.

**Table 5-2191** io.k8s.api.apps.v1.RollingUpdateDeployment

Parameter	Type	Description
maxSurge	String	The maximum number of pods that can be scheduled above the desired number of pods. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). This can not be 0 if MaxUnavailable is 0. Absolute number is calculated from percentage by rounding up. Defaults to 25%. Example: when this is set to 30%, the new ReplicaSet can be scaled up immediately when the rolling update starts, such that the total number of old and new pods do not exceed 130% of desired pods. Once old pods have been killed, new ReplicaSet can be scaled up further, ensuring that total number of pods running at any time during the update is at most 130% of desired pods.

Parameter	Type	Description
maxUnavailable	String	The maximum number of pods that can be unavailable during the update. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). Absolute number is calculated from percentage by rounding down. This can not be 0 if MaxSurge is 0. Defaults to 25%. Example: when this is set to 30%, the old ReplicaSet can be scaled down to 70% of desired pods immediately when the rolling update starts. Once new pods are ready, old ReplicaSet can be scaled down further, followed by scaling up the new ReplicaSet, ensuring that the total number of pods available at all times during the update is at least 70% of desired pods.

**Table 5-2192** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-2193** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.

Parameter	Type	Description
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.

Parameter	Type	Description
hostname	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/LocalObjectReference">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/Container">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/objects/PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>



Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "[topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).[topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).[topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).svc.[topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-2194** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-2195** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-2196** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-2197** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-2198** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-2199** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-2200** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-2201** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-2202** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-2203** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-2204** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-2205** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-2206** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>



Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2207** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-2208** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-2209** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2210** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-2211** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-2212** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined



**Table 5-2213** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-2214** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-2215** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-2216** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-2217** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-2218** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-2219** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-2220** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2221** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-2222** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-2223** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-2224** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-2225** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-2226** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-2227** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-2228** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'. Must not contain '..'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-2229** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-2230** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-2231** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.



**Table 5-2232** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2233** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-2234** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-2235** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-2236** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2237** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-2238** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-2239** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine



Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-2240** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-2241** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-2242** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-2243** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-2244** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-2245** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-2246** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-2247** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-2248** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-2249** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-2250** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-2251** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.



Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2252** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-2253** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2254** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-2255** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-2256** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-2257** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-2258** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-2259** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-2260** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.



Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-2261** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-2262** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-2263** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-2264** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-2265** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-2266** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br):[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).



Parameter	Type	Description
		<p>tbody/row/entry/p/br {""}) (br ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br ::= "e" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br   "E" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that will cause implementors to also use a fixed point implementation.</p>

**Table 5-2268** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-2269** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-2270** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-2271** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-2272** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-2273** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project

Parameter	Type	Description
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountProjection</a> object	information about the serviceAccountToken data to project

**Table 5-2274** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-2275** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file



**Table 5-2276** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-2277** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-2278** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-2279** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-2280** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-2281** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-2282** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-2283** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-2284** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-2285** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-2286** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-2287** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-2288** io.k8s.api.apps.v1.DeploymentStatus

Parameter	Type	Description
availableReplicas	Integer	Total number of available pods (ready for at least minReadySeconds) targeted by this deployment.
collisionCount	Integer	Count of hash collisions for the Deployment. The Deployment controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ReplicaSet.
conditions	Array of <a href="#">io.k8s.api.apps.v1.DeploymentCondition</a> objects	Represents the latest available observations of a deployment's current state.
observedGeneration	Long	The generation observed by the deployment controller.
readyReplicas	Integer	Total number of ready pods targeted by this deployment.
replicas	Integer	Total number of non-terminated pods targeted by this deployment (their labels match the selector).
unavailableReplicas	Integer	Total number of unavailable pods targeted by this deployment. This is the total number of pods that are still required for the deployment to have 100% available capacity. They may either be pods that are running but not yet available or pods that still have not been created.

Parameter	Type	Description
updatedReplicas	Integer	Total number of non-terminated pods targeted by this deployment that have the desired template spec.

**Table 5-2289** io.k8s.api.apps.v1.DeploymentCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
lastUpdateTime	String	The last time this condition was updated.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of deployment condition.

**Status code: 202**

**Table 5-2290** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>



Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object metadata.
spec	<a href="#">io.k8s.api.apps.v1.DeploymentSpec</a> object	Specification of the desired behavior of the Deployment.
status	<a href="#">io.k8s.api.apps.v1.DeploymentStatus</a> object	Most recently observed status of the Deployment.

**Table 5-2291** io.k8s.api.apps.v1.DeploymentSpec

Parameter	Type	Description
minReadySeconds	Integer	Minimum number of seconds for which a newly created pod should be ready without any of its container crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)
paused	Boolean	Indicates that the deployment is paused.
progressDeadlineSeconds	Integer	The maximum time in seconds for a deployment to make progress before it is considered to be failed. The deployment controller will continue to process failed deployments and a condition with a ProgressDeadlineExceeded reason will be surfaced in the deployment status. Note that progress will not be estimated during the time a deployment is paused. Defaults to 600s.
replicas	Integer	Number of desired pods. This is a pointer to distinguish between explicit zero and not specified. Defaults to 1.
revisionHistoryLimit	Integer	The number of old ReplicaSets to retain to allow rollback. This is a pointer to distinguish between explicit zero and not specified. Defaults to 10.

Parameter	Type	Description
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	Label selector for pods. Existing ReplicaSets whose pods are selected by this will be the ones affected by this deployment. It must match the pod template's labels.
strategy	<a href="#">io.k8s.api.apps.v1.DeploymentStrategy</a> object	The deployment strategy to use to replace existing pods with new ones.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Template describes the pods that will be created.

**Table 5-2292** io.k8s.api.apps.v1.DeploymentStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateDeployment</a> object	Rolling update config params. Present only if DeploymentStrategyType = RollingUpdate.
type	String	Type of deployment. Can be "Recreate" or "RollingUpdate". Default is RollingUpdate.

**Table 5-2293** io.k8s.api.apps.v1.RollingUpdateDeployment

Parameter	Type	Description
maxSurge	String	The maximum number of pods that can be scheduled above the desired number of pods. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). This can not be 0 if MaxUnavailable is 0. Absolute number is calculated from percentage by rounding up. Defaults to 25%. Example: when this is set to 30%, the new ReplicaSet can be scaled up immediately when the rolling update starts, such that the total number of old and new pods do not exceed 130% of desired pods. Once old pods have been killed, new ReplicaSet can be scaled up further, ensuring that total number of pods running at any time during the update is at most 130% of desired pods.

Parameter	Type	Description
maxUnavailable	String	The maximum number of pods that can be unavailable during the update. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). Absolute number is calculated from percentage by rounding down. This can not be 0 if MaxSurge is 0. Defaults to 25%. Example: when this is set to 30%, the old ReplicaSet can be scaled down to 70% of desired pods immediately when the rolling update starts. Once new pods are ready, old ReplicaSet can be scaled down further, followed by scaling up the new ReplicaSet, ensuring that the total number of pods available at all times during the update is at least 70% of desired pods.

**Table 5-2294** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-2295** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.

Parameter	Type	Description
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.

Parameter	Type	Description
hostname	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/types/#PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "[hostname/]svc.[hostname/]". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>



**Table 5-2296** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-2297** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-2298** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-2299** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-2300** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-2301** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-2302** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-2303** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-2304** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-2305** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-2306** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-2307** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-2308** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.



Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2309** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-2310** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-2311** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2312** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-2313** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-2314** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-2315** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-2316** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-2317** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-2318** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-2319** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-2320** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.



Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-2321** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-2322** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2323** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-2324** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-2325** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-2326** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-2327** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-2328** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-2329** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-2330** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-2331** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-2332** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-2333** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-2334** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2335** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.



**Table 5-2336** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-2337** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-2338** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2339** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-2340** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-2341** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-2342** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-2343** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared



Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-2344** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-2345** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-2346** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-2347** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-2348** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-2349** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-2350** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-2351** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-2352** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-2353** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>



Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2354** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-2355** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2356** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-2357** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-2358** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-2359** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-2360** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-2361** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-2362** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-2363** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-2364** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-2365** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-2366** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-2367** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>



Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-2368** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br):[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).



Parameter	Type	Description
		<p>tbody/row/entry/p/br {""}) (br ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br ::= "e" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br   "E" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than <math>2^{63}-1</math> in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that will cause implementors to also use a fixed point implementation.</p>

**Table 5-2370** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-2371** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-2372** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-2373** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-2374** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-2375** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project

Parameter	Type	Description
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountProjection</a> object	information about the serviceAccountToken data to project

**Table 5-2376** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-2377** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-2378** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-2379** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-2380** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-2381** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-2382** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.



**Table 5-2383** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-2384** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-2385** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-2386** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-2387** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-2388** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-2389** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-2390** io.k8s.api.apps.v1.DeploymentStatus

Parameter	Type	Description
availableReplicas	Integer	Total number of available pods (ready for at least minReadySeconds) targeted by this deployment.
collisionCount	Integer	Count of hash collisions for the Deployment. The Deployment controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ReplicaSet.
conditions	Array of <a href="#">io.k8s.api.apps.v1.DeploymentCondition</a> objects	Represents the latest available observations of a deployment's current state.
observedGeneration	Long	The generation observed by the deployment controller.
readyReplicas	Integer	Total number of ready pods targeted by this deployment.
replicas	Integer	Total number of non-terminated pods targeted by this deployment (their labels match the selector).
unavailableReplicas	Integer	Total number of unavailable pods targeted by this deployment. This is the total number of pods that are still required for the deployment to have 100% available capacity. They may either be pods that are running but not yet available or pods that still have not been created.

Parameter	Type	Description
updatedReplicas	Integer	Total number of non-terminated pods targeted by this deployment that have the desired template spec.

**Table 5-2391** io.k8s.api.apps.v1.DeploymentCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
lastUpdateTime	String	The last time this condition was updated.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of deployment condition.

## Example Requests

- Creating a Deployment named **deployment-test** and using a Redis image to create a pod with vCPUs set to 500m and memory set to 1024 Mi

```
{
  "apiVersion": "apps/v1",
  "kind": "Deployment",
  "metadata": {
    "name": "deployment-test"
  },
  "spec": {
    "replicas": 1,
    "selector": {
      "matchLabels": {
        "app": "redis"
      }
    }
  },
  "template": {
    "metadata": {
      "labels": {
        "app": "redis"
      }
    }
  },
  "spec": {
    "containers": [ {
      "image": "redis",
      "name": "container-0",
      "resources": {
        "limits": {
          "cpu": "500m",
          "memory": "1024Mi"
        }
      }
    }
  ],
}
```

```
    "requests": {
      "cpu": "500m",
      "memory": "1024Mi"
    }
  },
  "imagePullSecrets": [ {
    "name": "imagepull-secret"
  } ],
  "priority": 0
}
}
```

- Creating a Deployment that uses NVIDIA GPUs of the 418.126 version

```
{
  "apiVersion": "apps/v1",
  "kind": "Deployment",
  "metadata": {
    "name": "test-app",
    "namespace": "test-namespace"
  },
  "spec": {
    "replicas": 2,
    "selector": {
      "matchLabels": {
        "app": "test-app"
      }
    },
    "template": {
      "metadata": {
        "annotations": {
          "cri.cci.io/gpu-driver": "gpu-418.126"
        },
        "labels": {
          "app": "test-app"
        }
      },
      "spec": {
        "containers": [ {
          "image": "library/nginx:stable-alpine-perl",
          "lifecycle": { },
          "name": "container-0",
          "resources": {
            "limits": {
              "cpu": "4",
              "memory": "32Gi",
              "nvidia.com/gpu-tesla-v100-16GB": "1"
            },
            "requests": {
              "cpu": "4",
              "memory": "32Gi",
              "nvidia.com/gpu-tesla-v100-16GB": "1"
            }
          }
        }
      ],
      "imagePullSecrets": [ {
        "name": "imagepull-secret"
      } ],
      "restartPolicy": "Always"
    }
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "apps/v1",
  "kind": "Deployment",
  "metadata": {
    "creationTimestamp": "2018-09-06T03:39:32Z",
    "generation": 1,
    "labels": {
      "app": "redis"
    },
  },
  "name": "deployment-test",
  "namespace": "namespace-test",
  "resourceVersion": "5630832",
  "selfLink": "/apis/apps/v1/namespaces/namespace-test/deployments/deployment-test",
  "uid": "777dce52-b186-11e8-8cb0-c81fbe371a17"
},
"spec": {
  "progressDeadlineSeconds": 600,
  "replicas": 1,
  "revisionHistoryLimit": 10,
  "selector": {
    "matchLabels": {
      "app": "redis"
    }
  },
},
"strategy": {
  "rollingUpdate": {
    "maxSurge": "25%",
    "maxUnavailable": "25%"
  },
  "type": "RollingUpdate"
},
"template": {
  "metadata": {
    "annotations": {
      "cri.cci.io/container-type": "secure-container"
    },
  },
  "creationTimestamp": null,
  "labels": {
    "app": "redis"
  },
},
"spec": {
  "containers": [ {
    "image": "redis",
    "imagePullPolicy": "IfNotPresent",
    "name": "container-0",
    "resources": {
      "limits": {
        "cpu": "500m",
        "memory": "1Gi"
      },
      "requests": {
        "cpu": "500m",
        "memory": "1Gi"
      }
    },
    "terminationMessagePath": "/dev/termination-log",
    "terminationMessagePolicy": "File"
  } ],
  "dnsPolicy": "ClusterFirst",
  "imagePullSecrets": [ {
    "name": "imagepull-secret"
  } ],
  "restartPolicy": "Always",
  "schedulerName": "default-scheduler",
  "securityContext": { }
}
}
```



```
},  
"status": {}  
}
```

## Status Codes

Status Code	Description
200	OK
201	Created
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	AlreadyExists
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.5.5 Deleting a Deployment

### Function

This API is used to delete a specified Deployment.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /apis/apps/v1/namespaces/{namespace}/deployments/{name}

**Table 5-2392** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Deployment
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-2393** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.

Parameter	Mandatory	Type	Description
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-2394** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-2395** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-2396** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

**Status code: 200**

**Table 5-2397** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-2398** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2399** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional.  Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"

Parameter	Type	Description
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-2400** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.



Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Status code: 202

Table 5-2401 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-2402** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>

Parameter	Type	Description
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2403** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-2404** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.

Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

- Deleting the Deployment (The ReplicaSets and pods are not deleted.)

```
{
  "Kind": "DeleteOptions",
  "apiVersion": "v1",
  "propagationPolicy": "Orphan"
}
```

- Deleting the pods, ReplicaSets, and the Deployment

```
{
  "apiVersion": "v1",
  "kind": "DeleteOptions",
  "propagationPolicy": "Foreground"
}
```

- Deleting the Deployment, ReplicaSets, and pods

```
{
  "apiVersion": "v1",
```

```
"kind" : "DeleteOptions",
"propagationPolicy" : "Background"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion" : "v1",
  "code" : 200,
  "details" : {
    "group" : "extensions",
    "kind" : "deployments",
    "name" : "deploy-12130306",
    "uid" : "27072a31-dfb3-11e7-9c19-fa163e2d897b"
  },
  "kind" : "Status",
  "metadata" : { },
  "status" : "Success"
}
```

## Status Codes

Status Code	Description
200	OK
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.5.6 Querying a Deployment

### Function

This API is used to query the details about a specified Deployment.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/apps/v1/namespaces/{namespace}/deployments/{name}

**Table 5-2405** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Deployment
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-2406** Query Parameters

Parameter	Mandatory	Type	Description
exact	No	Boolean	Should the export be exact. Exact export maintains cluster-specific fields like 'Namespace'. Deprecated. Planned for removal in 1.18.
export	No	Boolean	Should this value be exported. Export strips fields that a user can not specify. Deprecated. Planned for removal in 1.18.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-2407** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-2408** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object metadata.
spec	<a href="#">io.k8s.api.apps.v1.DeploymentSpec</a> object	Specification of the desired behavior of the Deployment.
status	<a href="#">io.k8s.api.apps.v1.DeploymentStatus</a> object	Most recently observed status of the Deployment.

**Table 5-2409** io.k8s.api.apps.v1.DeploymentSpec

Parameter	Type	Description
minReadySeconds	Integer	Minimum number of seconds for which a newly created pod should be ready without any of its container crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)
paused	Boolean	Indicates that the deployment is paused.
progressDeadlineSeconds	Integer	The maximum time in seconds for a deployment to make progress before it is considered to be failed. The deployment controller will continue to process failed deployments and a condition with a ProgressDeadlineExceeded reason will be surfaced in the deployment status. Note that progress will not be estimated during the time a deployment is paused. Defaults to 600s.
replicas	Integer	Number of desired pods. This is a pointer to distinguish between explicit zero and not specified. Defaults to 1.
revisionHistoryLimit	Integer	The number of old ReplicaSets to retain to allow rollback. This is a pointer to distinguish between explicit zero and not specified. Defaults to 10.
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	Label selector for pods. Existing ReplicaSets whose pods are selected by this will be the ones affected by this deployment. It must match the pod template's labels.
strategy	<a href="#">io.k8s.api.apps.v1.DeploymentStrategy</a> object	The deployment strategy to use to replace existing pods with new ones.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Template describes the pods that will be created.



**Table 5-2410** io.k8s.api.apps.v1.DeploymentStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateDeployment</a> object	Rolling update config params. Present only if DeploymentStrategyType = RollingUpdate.
type	String	Type of deployment. Can be "Recreate" or "RollingUpdate". Default is RollingUpdate.

**Table 5-2411** io.k8s.api.apps.v1.RollingUpdateDeployment

Parameter	Type	Description
maxSurge	String	The maximum number of pods that can be scheduled above the desired number of pods. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). This can not be 0 if MaxUnavailable is 0. Absolute number is calculated from percentage by rounding up. Defaults to 25%. Example: when this is set to 30%, the new ReplicaSet can be scaled up immediately when the rolling update starts, such that the total number of old and new pods do not exceed 130% of desired pods. Once old pods have been killed, new ReplicaSet can be scaled up further, ensuring that total number of pods running at any time during the update is at most 130% of desired pods.
maxUnavailable	String	The maximum number of pods that can be unavailable during the update. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). Absolute number is calculated from percentage by rounding down. This can not be 0 if MaxSurge is 0. Defaults to 25%. Example: when this is set to 30%, the old ReplicaSet can be scaled down to 70% of desired pods immediately when the rolling update starts. Once new pods are ready, old ReplicaSet can be scaled down further, followed by scaling up the new ReplicaSet, ensuring that the total number of pods available at all times during the update is at least 70% of desired pods.

**Table 5-2412** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-2413** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.

Parameter	Type	Description
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>

Parameter	Type	Description
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	nodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/objects/PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-2414** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-2415** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-2416** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.



Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-2417** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-2418** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-2419** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-2420** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-2421** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-2422** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-2423** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-2424** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-2425** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-2426** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2427** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-2428** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>



**Table 5-2429** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2430** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-2431** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-2432** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-2433** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-2434** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-2435** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-2436** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-2437** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-2438** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-2439** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-2440** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.



Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2441** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-2442** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCP socket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-2443** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-2444** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-2445** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-2446** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-2447** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-2448** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-2449** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-2450** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-2451** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-2452** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2453** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-2454** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-2455** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-2456** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.



**Table 5-2457** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-2458** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-2459** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-2460** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-2461** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-2462** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-2463** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>



**Table 5-2464** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-2465** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-2466** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-2467** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-2468** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-2469** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-2470** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-2471** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.



Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2472** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-2473** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2474** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-2475** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-2476** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-2477** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-2478** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-2479** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-2480** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-2481** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-2482** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-2483** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-2484** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-2485** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-2486** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).



**Table 5-2487** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-2488** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-2489** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-2490** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-2491** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-2492** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-2493** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-2494** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-2495** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-2496** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-2497** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-2498** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-2499** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-2500** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-2501** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-2502** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-2503** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.



Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-2504** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-2505** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-2506** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-2507** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-2508** io.k8s.api.apps.v1.DeploymentStatus

Parameter	Type	Description
availableReplicas	Integer	Total number of available pods (ready for at least minReadySeconds) targeted by this deployment.
collisionCount	Integer	Count of hash collisions for the Deployment. The Deployment controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ReplicaSet.
conditions	Array of <a href="#">io.k8s.api.apps.v1.DeploymentCondition</a> objects	Represents the latest available observations of a deployment's current state.
observedGeneration	Long	The generation observed by the deployment controller.
readyReplicas	Integer	Total number of ready pods targeted by this deployment.
replicas	Integer	Total number of non-terminated pods targeted by this deployment (their labels match the selector).
unavailableReplicas	Integer	Total number of unavailable pods targeted by this deployment. This is the total number of pods that are still required for the deployment to have 100% available capacity. They may either be pods that are running but not yet available or pods that still have not been created.

Parameter	Type	Description
updatedReplicas	Integer	Total number of non-terminated pods targeted by this deployment that have the desired template spec.

**Table 5-2509** io.k8s.api.apps.v1.DeploymentCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
lastUpdateTime	String	The last time this condition was updated.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of deployment condition.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "apps/v1",
  "kind": "Deployment",
  "metadata": {
    "annotations": {
      "deployment.kubernetes.io/revision": "1"
    },
    "creationTimestamp": "2018-09-03T12:58:07Z",
    "generation": 1,
    "labels": {
      "app": "redis"
    },
    "name": "deployment-test",
    "namespace": "namespace-test",
    "resourceVersion": "5036888",
    "selfLink": "/apis/apps/v1/namespaces/namespace-test/deployments/deployment-test",
    "uid": "010506c7-af79-11e8-b6ef-f898ef6c78b4"
  },
  "spec": {
    "progressDeadlineSeconds": 600,
    "replicas": 1,

```

```
"revisionHistoryLimit" : 2,
"selector" : {
  "matchLabels" : {
    "app" : "redis"
  }
},
"strategy" : {
  "rollingUpdate" : {
    "maxSurge" : "25%",
    "maxUnavailable" : "25%"
  },
  "type" : "RollingUpdate"
},
"template" : {
  "metadata" : {
    "annotations" : {
      "cri.cci.io/container-type" : "secure-container"
    },
    "creationTimestamp" : null,
    "labels" : {
      "app" : "redis"
    }
  },
  "spec" : {
    "containers" : [ {
      "image" : "redis",
      "imagePullPolicy" : "IfNotPresent",
      "name" : "container-0",
      "resources" : {
        "limits" : {
          "cpu" : "500m",
          "memory" : "1Gi"
        },
        "requests" : {
          "cpu" : "500m",
          "memory" : "1Gi"
        }
      },
      "terminationMessagePath" : "/dev/termination-log",
      "terminationMessagePolicy" : "File"
    } ],
    "dnsPolicy" : "ClusterFirst",
    "imagePullSecrets" : [ {
      "name" : "imagepull-secret"
    } ],
    "restartPolicy" : "Always",
    "schedulerName" : "default-scheduler",
    "securityContext" : { }
  }
},
"status" : {
  "availableReplicas" : 1,
  "conditions" : [ {
    "lastTransitionTime" : "2018-09-03T12:58:12Z",
    "lastUpdateTime" : "2018-09-03T12:58:12Z",
    "message" : "Deployment has minimum availability.",
    "reason" : "MinimumReplicasAvailable",
    "status" : "True",
    "type" : "Available"
  }, {
    "lastTransitionTime" : "2018-09-03T12:58:07Z",
    "lastUpdateTime" : "2018-09-03T12:58:12Z",
    "message" : "ReplicaSet \"deployment-test-57f7cff77c\" has successfully\rprogressed.",
    "reason" : "NewReplicaSetAvailable",
    "status" : "True",
    "type" : "Progressing"
  } ],
  "observedGeneration" : 1,
```

```
"readyReplicas" : 1,  
"replicas" : 1,  
"updatedReplicas" : 1  
}  
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.5.7 Updating a Deployment

### Function

This API is used to update a specified Deployment.

The following fields can be updated:

- **metadata.labels**
- **metadata.generateName**
- **metadata.annotations**
- **spec.template**
- **spec.replicas**
- **spec.revisionHistoryLimit**
- **spec.progressDeadlineSeconds**

## Calling Method

For details, see [Calling APIs](#).

## URI

PATCH /apis/apps/v1/namespaces/{namespace}/deployments/{name}

**Table 5-2510** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Deployment
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-2511** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> . This field is required for apply requests (application/apply-patch) but optional for non-apply patch types (JsonPatch, MergePatch, StrategicMergePatch).

Parameter	Mandatory	Type	Description
force	No	Boolean	Force is going to "force" Apply requests. It means user will re-acquire conflicting fields owned by other people. Force flag must be unset for non-apply patch requests.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

Table 5-2512 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.



Parameter	Mandatory	Type	Description
Content-Type	Yes	String	<p>Currently, three types of patch request methods are supported. For details, see "Update API Objects in Place Using kubectl patch" (<a href="https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/">https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/</a>).</p> <ul style="list-style-type: none"> <li>• <b>Json Patch, Content-Type: application/json-patch+json</b> As defined in RFC6902, Json Patch contains a series of operations on a JSON object. After receiving the object, the server applies the represented operations to the JSON object.</li> <li>• <b>Merge Patch, Content-Type: application/merge-patch+json</b> According to RFC 7386, Merge Patch contains some description of a JSON object. The JSON object is submitted to the server end and merges with the current object of the server end, which means to replace the list field of the current resource object to form a new object.</li> <li>• <b>Strategic Merge Patch, Content-Type: application/strategic-merge-patch+json</b> Strategic Merge Patch is used to add legal metadata to API objects and uses new metadata to determine which lists should be merged and which ones should not. The current metadata is used as the structure labels.</li> </ul>

**Table 5-2513** Request body parameters

Parameter	Mandatory	Type	Description
-	Yes	Object	Patch is provided to give a concrete name and type to the Kubernetes PATCH request body.

## Response Parameters

Status code: 200

**Table 5-2514** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object metadata.
spec	<a href="#">io.k8s.api.apps.v1.DeploymentSpec</a> object	Specification of the desired behavior of the Deployment.
status	<a href="#">io.k8s.api.apps.v1.DeploymentStatus</a> object	Most recently observed status of the Deployment.

**Table 5-2515** io.k8s.api.apps.v1.DeploymentSpec

Parameter	Type	Description
minReadySeconds	Integer	Minimum number of seconds for which a newly created pod should be ready without any of its container crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)
paused	Boolean	Indicates that the deployment is paused.
progressDeadlineSeconds	Integer	The maximum time in seconds for a deployment to make progress before it is considered to be failed. The deployment controller will continue to process failed deployments and a condition with a ProgressDeadlineExceeded reason will be surfaced in the deployment status. Note that progress will not be estimated during the time a deployment is paused. Defaults to 600s.
replicas	Integer	Number of desired pods. This is a pointer to distinguish between explicit zero and not specified. Defaults to 1.
revisionHistoryLimit	Integer	The number of old ReplicaSets to retain to allow rollback. This is a pointer to distinguish between explicit zero and not specified. Defaults to 10.
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	Label selector for pods. Existing ReplicaSets whose pods are selected by this will be the ones affected by this deployment. It must match the pod template's labels.
strategy	<a href="#">io.k8s.api.apps.v1.DeploymentStrategy</a> object	The deployment strategy to use to replace existing pods with new ones.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Template describes the pods that will be created.

**Table 5-2516** io.k8s.api.apps.v1.DeploymentStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateDeployment</a> object	Rolling update config params. Present only if DeploymentStrategyType = RollingUpdate.
type	String	Type of deployment. Can be "Recreate" or "RollingUpdate". Default is RollingUpdate.

**Table 5-2517** io.k8s.api.apps.v1.RollingUpdateDeployment

Parameter	Type	Description
maxSurge	String	The maximum number of pods that can be scheduled above the desired number of pods. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). This can not be 0 if MaxUnavailable is 0. Absolute number is calculated from percentage by rounding up. Defaults to 25%. Example: when this is set to 30%, the new ReplicaSet can be scaled up immediately when the rolling update starts, such that the total number of old and new pods do not exceed 130% of desired pods. Once old pods have been killed, new ReplicaSet can be scaled up further, ensuring that total number of pods running at any time during the update is at most 130% of desired pods.
maxUnavailable	String	The maximum number of pods that can be unavailable during the update. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). Absolute number is calculated from percentage by rounding down. This can not be 0 if MaxSurge is 0. Defaults to 25%. Example: when this is set to 30%, the old ReplicaSet can be scaled down to 70% of desired pods immediately when the rolling update starts. Once new pods are ready, old ReplicaSet can be scaled down further, followed by scaling up the new ReplicaSet, ensuring that the total number of pods available at all times during the update is at least 70% of desired pods.

**Table 5-2518** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-2519** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.

Parameter	Type	Description
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>

Parameter	Type	Description
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	nodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/objects/PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>



Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-2520** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-2521** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-2522** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.

Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-2523** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-2524** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-2525** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-2526** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-2527** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-2528** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-2529** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-2530** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-2531** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-2532** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>



Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2533** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-2534** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-2535** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2536** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-2537** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-2538** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined



**Table 5-2539** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-2540** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-2541** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-2542** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-2543** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-2544** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-2545** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-2546** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2547** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-2548** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCP socket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-2549** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-2550** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-2551** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-2552** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-2553** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-2554** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-2555** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-2556** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-2557** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.



**Table 5-2558** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2559** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-2560** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-2561** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-2562** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2563** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-2564** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-2565** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine



Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-2566** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-2567** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-2568** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-2569** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-2570** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-2571** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-2572** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-2573** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-2574** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-2575** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-2576** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-2577** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.



Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-2578** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-2579** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2580** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-2581** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-2582** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-2583** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-2584** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-2585** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-2586** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.



Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-2587** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-2588** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-2589** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-2590** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-2591** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-2592** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-2593** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-2594** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-2595** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-2596** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-2597** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-2598** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-2599** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-2600** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-2601** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-2602** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-2603** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-2604** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select



**Table 5-2605** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-2606** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-2607** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-2608** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-2609** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-2610** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-2611** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-2612** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-2613** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-2614** io.k8s.api.apps.v1.DeploymentStatus

Parameter	Type	Description
availableReplicas	Integer	Total number of available pods (ready for at least minReadySeconds) targeted by this deployment.
collisionCount	Integer	Count of hash collisions for the Deployment. The Deployment controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ReplicaSet.
conditions	Array of <a href="#">io.k8s.api.apps.v1.DeploymentCondition</a> objects	Represents the latest available observations of a deployment's current state.
observedGeneration	Long	The generation observed by the deployment controller.
readyReplicas	Integer	Total number of ready pods targeted by this deployment.
replicas	Integer	Total number of non-terminated pods targeted by this deployment (their labels match the selector).
unavailableReplicas	Integer	Total number of unavailable pods targeted by this deployment. This is the total number of pods that are still required for the deployment to have 100% available capacity. They may either be pods that are running but not yet available or pods that still have not been created.

Parameter	Type	Description
updatedReplicas	Integer	Total number of non-terminated pods targeted by this deployment that have the desired template spec.

**Table 5-2615** io.k8s.api.apps.v1.DeploymentCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
lastUpdateTime	String	The last time this condition was updated.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of deployment condition.

## Example Requests

Updating the **labels** value for a Deployment

```
{
  "metadata": {
    "labels": {
      "app": "deployment-test2"
    }
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "apps/v1",
  "kind": "Deployment",
  "metadata": {
    "annotations": {
      "deployment.kubernetes.io/revision": "2"
    },
    "creationTimestamp": "2018-09-06T03:39:32Z",
    "generation": 2,
    "labels": {
      "app": "deployment-test2"
    },
    "name": "deployment-test",
```

```
"namespace" : "namespace-test",
"resourceVersion" : "5657176",
"selfLink" : "/apis/apps/v1/namespaces/namespace-test/deployments/deployment-test",
"uid" : "777dce52-b186-11e8-8cb0-c81fbe371a17"
},
"spec" : {
  "progressDeadlineSeconds" : 600,
  "replicas" : 2,
  "revisionHistoryLimit" : 10,
  "selector" : {
    "matchLabels" : {
      "app" : "redis"
    }
  },
  "strategy" : {
    "rollingUpdate" : {
      "maxSurge" : "25%",
      "maxUnavailable" : "25%"
    },
    "type" : "RollingUpdate"
  },
  "template" : {
    "metadata" : {
      "creationTimestamp" : null,
      "labels" : {
        "app" : "redis"
      }
    },
    "spec" : {
      "containers" : [ {
        "image" : "20202/cci/redis:V1",
        "imagePullPolicy" : "IfNotPresent",
        "name" : "container-0",
        "resources" : {
          "limits" : {
            "cpu" : "500m",
            "memory" : "1Gi"
          },
          "requests" : {
            "cpu" : "500m",
            "memory" : "1Gi"
          }
        },
        "terminationMessagePath" : "/dev/termination-log",
        "terminationMessagePolicy" : "File"
      } ],
      "dnsPolicy" : "ClusterFirst",
      "imagePullSecrets" : [ {
        "name" : "imagepull-secret"
      } ],
      "restartPolicy" : "Always",
      "schedulerName" : "default-scheduler",
      "securityContext" : { }
    }
  },
  "status" : {
    "availableReplicas" : 2,
    "conditions" : [ {
      "lastTransitionTime" : "2018-09-06T04:14:14Z",
      "lastUpdateTime" : "2018-09-06T04:14:14Z",
      "message" : "Deployment has minimum availability.",
      "reason" : "MinimumReplicasAvailable",
      "status" : "True",
      "type" : "Available"
    }, {
      "lastTransitionTime" : "2018-09-06T03:39:32Z",
      "lastUpdateTime" : "2018-09-06T04:14:24Z",
      "message" : "ReplicaSet \"deployment-test-68585dfddb\" has successfully\rprogressed.",
```



```
"reason" : "NewReplicaSetAvailable",
"status" : "True",
"type" : "Progressing"
}],
"observedGeneration" : 2,
"readyReplicas" : 2,
"replicas" : 2,
"updatedReplicas" : 2
}
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.5.8 Replacing a Deployment

### Function

This API is used to replace a specified Deployment.

The following fields can be updated:

- **metadata.labels**
- **metadata.generateName**
- **metadata.annotations**
- **spec.template**

- `spec.replicas`
- `spec.revisionHistoryLimit`
- `spec.progressDeadlineSeconds`

## Calling Method

For details, see [Calling APIs](#).

## URI

PUT `/apis/apps/v1/namespaces/{namespace}/deployments/{name}`

**Table 5-2616** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Deployment
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-2617** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-2618** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-2619** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object metadata.

Parameter	Mandatory	Type	Description
spec	No	<a href="#">io.k8s.api.apps.v1.DeploymentSpec</a> object	Specification of the desired behavior of the Deployment.
status	No	<a href="#">io.k8s.api.apps.v1.DeploymentStatus</a> object	Most recently observed status of the Deployment.

**Table 5-2620** io.k8s.api.apps.v1.DeploymentSpec

Parameter	Mandatory	Type	Description
minReadySeconds	No	Integer	Minimum number of seconds for which a newly created pod should be ready without any of its container crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)
paused	No	Boolean	Indicates that the deployment is paused.
progressDeadlineSeconds	No	Integer	The maximum time in seconds for a deployment to make progress before it is considered to be failed. The deployment controller will continue to process failed deployments and a condition with a ProgressDeadlineExceeded reason will be surfaced in the deployment status. Note that progress will not be estimated during the time a deployment is paused. Defaults to 600s.
replicas	No	Integer	Number of desired pods. This is a pointer to distinguish between explicit zero and not specified. Defaults to 1.
revisionHistoryLimit	No	Integer	The number of old ReplicaSets to retain to allow rollback. This is a pointer to distinguish between explicit zero and not specified. Defaults to 10.

Parameter	Mandatory	Type	Description
selector	Yes	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	Label selector for pods. Existing ReplicaSets whose pods are selected by this will be the ones affected by this deployment. It must match the pod template's labels.
strategy	No	<a href="#">io.k8s.api.apps.v1.DeploymentStrategy</a> object	The deployment strategy to use to replace existing pods with new ones.
template	Yes	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Template describes the pods that will be created.

**Table 5-2621** io.k8s.api.apps.v1.DeploymentStrategy

Parameter	Mandatory	Type	Description
rollingUpdate	No	<a href="#">io.k8s.api.apps.v1.RollingUpdateDeployment</a> object	Rolling update config params. Present only if DeploymentStrategyType = RollingUpdate.
type	No	String	Type of deployment. Can be "Recreate" or "RollingUpdate". Default is RollingUpdate.

**Table 5-2622** io.k8s.api.apps.v1.RollingUpdateDeployment

Parameter	Mandatory	Type	Description
maxSurge	No	String	The maximum number of pods that can be scheduled above the desired number of pods. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). This can not be 0 if MaxUnavailable is 0. Absolute number is calculated from percentage by rounding up. Defaults to 25%. Example: when this is set to 30%, the new ReplicaSet can be scaled up immediately when the rolling update starts, such that the total number of old and new pods do not exceed 130% of desired pods. Once old pods have been killed, new ReplicaSet can be scaled up further, ensuring that total number of pods running at any time during the update is at most 130% of desired pods.
maxUnavailable	No	String	The maximum number of pods that can be unavailable during the update. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). Absolute number is calculated from percentage by rounding down. This can not be 0 if MaxSurge is 0. Defaults to 25%. Example: when this is set to 30%, the old ReplicaSet can be scaled down to 70% of desired pods immediately when the rolling update starts. Once new pods are ready, old ReplicaSet can be scaled down further, followed by scaling up the new ReplicaSet, ensuring that the total number of pods available at all times during the update is at least 70% of desired pods.

**Table 5-2623** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Mandatory	Type	Description
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-2624** io.k8s.api.core.v1.PodSpec

Parameter	Mandatory	Type	Description
activeDeadlineSeconds	No	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	No	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	No	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Yes	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	No	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.

Parameter	Mandatory	Type	Description
dnsPolicy	No	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	No	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	No	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	No	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	No	Boolean	Use the host's ipc namespace. Optional: Default to false.



Parameter	Mandatory	Type	Description
hostNetwork	No	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	No	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	No	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	No	Array of <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod</a>

Parameter	Mandatory	Type	Description
initContainers	No	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	No	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	No	Map<String,String>	nodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Mandatory	Type	Description
overhead	No	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	No	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.

Parameter	Mandatory	Type	Description
priority	No	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	No	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	No	Array of <a href="https://kubernetes.io/api-references/api-groups/generated/k8s.io">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	No	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>

Parameter	Mandatory	Type	Description
runtimeClassName	No	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	No	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	No	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	No	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	No	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>

Parameter	Mandatory	Type	Description
setHostnameAsFQDN	No	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	No	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	No	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.

Parameter	Mandatory	Type	Description
terminationGracePeriodSeconds	No	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	No	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	No	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	No	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-2625** io.k8s.api.core.v1.Affinity

Parameter	Mandatory	Type	Description
nodeAffinity	No	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Mandatory	Type	Description
podAffinity	No	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	No	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-2626** io.k8s.api.core.v1.NodeAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.



Parameter	Mandatory	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	No	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-2627** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Mandatory	Type	Description
preference	Yes	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Yes	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-2628** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	No	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-2629** io.k8s.api.core.v1.NodeSelector

Parameter	Mandatory	Type	Description
nodeSelectorTerms	Yes	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-2630** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	The label key that the selector applies to.
operator	Yes	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist, Gt, and Lt.
values	No	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-2631** io.k8s.api.core.v1.PodAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-2632** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-2633** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Mandatory	Type	Description
podAffinityTerm	Yes	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Yes	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-2634** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Mandatory	Type	Description
labelSelector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	No	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	Yes	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-2635** io.k8s.api.core.v1.PodDNSConfig

Parameter	Mandatory	Type	Description
nameservers	No	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	No	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	No	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-2636** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Mandatory	Type	Description
name	No	String	Required.
value	No	String	value is the value of the option

**Table 5-2637** io.k8s.api.core.v1.EphemeralContainer

Parameter	Mandatory	Type	Description
args	No	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	No	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	No	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.

Parameter	Mandatory	Type	Description
envFrom	No	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	No	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	No	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	No	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	Yes	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	No	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.



Parameter	Mandatory	Type	Description
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	No	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	No	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	No	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false

Parameter	Mandatory	Type	Description
targetContainerName	No	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	No	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	No	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	No	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Mandatory	Type	Description
volumeDevices	No	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	No	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	No	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2638** io.k8s.api.core.v1.HostAlias

Parameter	Mandatory	Type	Description
hostnames	No	Array of strings	Hostnames for the above IP address.
ip	No	String	IP address of the host file entry.

**Table 5-2639** io.k8s.api.core.v1.LocalObjectReference

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-2640** io.k8s.api.core.v1.Container

Parameter	Mandatory	Type	Description
args	No	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	No	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	No	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.

Parameter	Mandatory	Type	Description
envFrom	No	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	No	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	No	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	No	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	No	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
securityContext	No	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>

Parameter	Mandatory	Type	Description
startupProbe	No	<a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	No	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	No	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false

Parameter	Mandatory	Type	Description
terminationMessagePath	No	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	No	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	No	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	No	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	No	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.



Parameter	Mandatory	Type	Description
workingDir	No	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2641** io.k8s.api.core.v1.EnvVar

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	No	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".
valueFrom	No	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-2642** io.k8s.api.core.v1.EnvVarSource

Parameter	Mandatory	Type	Description
configMapKeyRef	No	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.

Parameter	Mandatory	Type	Description
fieldRef	No	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports metadata.name, metadata.namespace, <i>metadata.labels['&lt;KEY&gt;']</i> , <i>metadata.annotations['&lt;KEY&gt;']</i> , spec.nodeName, spec.serviceAccountName, status.hostIP, status.podIP, status.podIPs.
resourceFieldRef	No	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	No	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-2643** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Mandatory	Type	Description
key	Yes	String	The key to select.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-2644** io.k8s.api.core.v1.SecretKeySelector

Parameter	Mandatory	Type	Description
key	Yes	String	The key of the secret to select from. Must be a valid secret key.

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret or its key must be defined

**Table 5-2645** io.k8s.api.core.v1.EnvFromSource

Parameter	Mandatory	Type	Description
configMapRef	No	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	No	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	No	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-2646** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap must be defined

**Table 5-2647** io.k8s.api.core.v1.SecretEnvSource

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret must be defined

**Table 5-2648** io.k8s.api.core.v1.Lifecycle

Parameter	Mandatory	Type	Description
postStart	No	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

Parameter	Mandatory	Type	Description
preStop	No	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-2649** io.k8s.api.core.v1.Handler

Parameter	Mandatory	Type	Description
exec	No	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	No	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
tcpSocket	No	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-2650** io.k8s.api.core.v1.ContainerPort

Parameter	Mandatory	Type	Description
containerPort	Yes	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	No	String	What host IP to bind the external port to.
hostPort	No	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	No	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	No	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-2651** io.k8s.api.core.v1.SecurityContext

Parameter	Mandatory	Type	Description
allowPrivilegeEscalation	No	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN

Parameter	Mandatory	Type	Description
capabilities	No	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	No	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.
procMount	No	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	No	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	No	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

Parameter	Mandatory	Type	Description
runAsUser	No	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	No	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	No	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.
windowsOptions	No	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2652** io.k8s.api.core.v1.Capabilities

Parameter	Mandatory	Type	Description
add	No	Array of strings	Added capabilities
drop	No	Array of strings	Removed capabilities



**Table 5-2653** io.k8s.api.core.v1.Probe

Parameter	Mandatory	Type	Description
exec	No	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	No	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	No	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	No	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	No	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	No	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.
tcpSocket	No	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	No	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-2654** io.k8s.api.core.v1.ExecAction

Parameter	Mandatory	Type	Description
command	No	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-2655** io.k8s.api.core.v1.HTTPGetAction

Parameter	Mandatory	Type	Description
host	No	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	No	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	No	String	Path to access on the HTTP server.
port	Yes	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	No	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-2656** io.k8s.api.core.v1.HTTPHeader

Parameter	Mandatory	Type	Description
name	Yes	String	The header field name

Parameter	Mandatory	Type	Description
value	Yes	String	The header field value

**Table 5-2657** io.k8s.api.core.v1.TCPSocketAction

Parameter	Mandatory	Type	Description
host	No	String	Optional: Host name to connect to, defaults to the pod IP.
port	Yes	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-2658** io.k8s.api.core.v1.VolumeDevice

Parameter	Mandatory	Type	Description
devicePath	Yes	String	devicePath is the path inside of the container that the device will be mapped to.
name	Yes	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-2659** io.k8s.api.core.v1.VolumeMount

Parameter	Mandatory	Type	Description
extendPathMode	No	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	Yes	String	Path within the container at which the volume should be mounted. Must not contain '!'.

Parameter	Mandatory	Type	Description
mountPropagation	No	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	Yes	String	This must match the Name of a Volume.
policy	No	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	No	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	No	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	No	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$ (VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-2660** io.k8s.api.core.v1.Policy

Parameter	Mandatory	Type	Description
logs	No	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-2661** io.k8s.api.core.v1.Logs

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations for log.
rotate	Yes	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-2662** io.k8s.api.core.v1.PodReadinessGate

Parameter	Mandatory	Type	Description
conditionType	Yes	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-2663** io.k8s.api.core.v1.PodSecurityContext

Parameter	Mandatory	Type	Description
fsGroup	No	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>

Parameter	Mandatory	Type	Description
fsGroupChangePolicy	No	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	No	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

Parameter	Mandatory	Type	Description
runAsUser	No	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seLinuxOptions	No	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	No	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	No	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	No	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	No	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2664** io.k8s.api.core.v1.SELinuxOptions

Parameter	Mandatory	Type	Description
level	No	String	Level is SELinux level label that applies to the container.
role	No	String	Role is a SELinux role label that applies to the container.
type	No	String	Type is a SELinux type label that applies to the container.
user	No	String	User is a SELinux user label that applies to the container.

**Table 5-2665** io.k8s.api.core.v1.SeccompProfile

Parameter	Mandatory	Type	Description
localhostProfile	No	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	Yes	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-2666** io.k8s.api.core.v1.Sysctl

Parameter	Mandatory	Type	Description
name	Yes	String	Name of a property to set
value	Yes	String	Value of a property to set



**Table 5-2667** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Mandatory	Type	Description
gmsaCredentialSpec	No	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	No	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	No	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2668** io.k8s.api.core.v1.Toleration

Parameter	Mandatory	Type	Description
effect	No	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	No	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.

Parameter	Mandatory	Type	Description
operator	No	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	No	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	No	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-2669** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Mandatory	Type	Description
labelSelector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Mandatory	Type	Description
maxSkew	Yes	Integer	<p>MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i>, it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3     P   P     - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1 (zone2) would make the ActualSkew(2-0) on zone1 (zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i>, it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.</p>
topologyKey	Yes	String	<p>TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each &lt;key, value&gt; as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.</p>

Parameter	Mandatory	Type	Description
whenUnsatisfiable	Yes	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3     P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-2670** io.k8s.api.core.v1.Volume

Parameter	Mandatory	Type	Description
awsElasticBlockStore	No	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

Parameter	Mandatory	Type	Description
azureDisk	No	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	No	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	No	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	No	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	No	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	No	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	No	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	No	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Mandatory	Type	Description
ephemeral	No	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	No	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	<p>FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.</p>
flexVolume	No	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	<p>FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.</p>

Parameter	Mandatory	Type	Description
flocker	No	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	No	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
gitRepo	No	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	No	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	No	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	No	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>

Parameter	Mandatory	Type	Description
localDir	No	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	Yes	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	No	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	No	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine
portworxVolume	No	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	No	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	No	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime



Parameter	Mandatory	Type	Description
rbd	No	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	No	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	No	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	No	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	No	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-2671** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

Parameter	Mandatory	Type	Description
partition	No	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	No	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticsearch">https://kubernetes.io/docs/concepts/storage/volumes#awselasticsearch</a>
volumeID	Yes	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticsearch">https://kubernetes.io/docs/concepts/storage/volumes#awselasticsearch</a>

**Table 5-2672** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Mandatory	Type	Description
cachingMode	No	String	Host Caching mode: None, Read Only, Read Write.
diskName	Yes	String	The Name of the data disk in the blob storage
diskURI	Yes	String	The URI the data disk in the blob storage
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.

Parameter	Mandatory	Type	Description
kind	No	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-2673** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	Yes	String	the name of secret that contains Azure Storage Account Name and Key
shareName	Yes	String	Share Name

**Table 5-2674** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Mandatory	Type	Description
monitors	Yes	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	No	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	No	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a>	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	No	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-2675** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

Parameter	Mandatory	Type	Description
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	Yes	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-2676** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-2677** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Mandatory	Type	Description
driver	Yes	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	No	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	No	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Mandatory	Type	Description
volumeAttributes	No	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-2678** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	No	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-2679** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Mandatory	Type	Description
medium	No	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	No	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-2680** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).



Parameter	Mandatory	Type	Description
volumeClaimTemplate	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-2681** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Mandatory	Type	Description
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	Yes	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-2682** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Mandatory	Type	Description
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.



Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-2683** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-2684** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2685** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Mandatory	Type	Description
dataSource	No	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	No	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>

Parameter	Mandatory	Type	Description
volumeMode	No	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	No	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-2686** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Mandatory	Type	Description
apiGroup	No	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	Yes	String	Kind is the type of resource being referenced
name	Yes	String	Name is the name of resource being referenced

**Table 5-2687** io.k8s.api.core.v1.ResourceRequirements

Parameter	Mandatory	Type	Description
limits	No	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Mandatory	Type	Description
requests	No	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-2688** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	No	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-2689** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	key is the label key that the selector applies to.
operator	Yes	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.

Parameter	Mandatory	Type	Description
values	No	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-2690** io.k8s.api.core.v1.FCVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	No	Integer	Optional: FC target lun number
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	No	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	No	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-2691** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Mandatory	Type	Description
driver	Yes	String	Driver is the name of the driver to use for this volume.

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	No	Map<String,String>	Optional: Extra command options if any.
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-2692** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Mandatory	Type	Description
datasetName	No	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	No	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-2693** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	No	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	Yes	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>



**Table 5-2694** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Mandatory	Type	Description
directory	No	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	Yes	String	Repository URL
revision	No	String	Commit hash for the specified revision.

**Table 5-2695** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Mandatory	Type	Description
endpoints	Yes	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	Yes	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	No	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-2696** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Mandatory	Type	Description
path	Yes	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
type	No	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-2697** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Mandatory	Type	Description
chapAuthDiscovery	No	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	No	Boolean	whether support iSCSI Session CHAP authentication
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	No	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	Yes	String	Target iSCSI Qualified Name.
iscsiInterface	No	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Yes	Integer	iSCSI Target Lun number.

Parameter	Mandatory	Type	Description
portals	No	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	Yes	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-2698** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Mandatory	Type	Description
sizeLimit	No	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or</p>

Parameter	Mandatory	Type	Description
			<p>suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that will cause implementors to also use a fixed point implementation.</p>

**Table 5-2699** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Mandatory	Type	Description
path	Yes	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	No	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	Yes	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-2700** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Mandatory	Type	Description
claimName	Yes	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	No	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-2701** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	Yes	String	ID that identifies Photon Controller persistent disk

**Table 5-2702** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	FSType represents the filesystem type to mount Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	Yes	String	VolumeID uniquely identifies a Portworx volume

**Table 5-2703** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Yes	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-2704** io.k8s.api.core.v1.VolumeProjection

Parameter	Mandatory	Type	Description
configMap	No	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	No	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project
secret	No	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	No	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-2705** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '.' path or start with '..'.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-2706** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-2707** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Mandatory	Type	Description
fieldRef	No	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.



Parameter	Mandatory	Type	Description
mode	No	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	Yes	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	No	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-2708** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Mandatory	Type	Description
apiVersion	No	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	Yes	String	Path of the field to select in the specified API version.

**Table 5-2709** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Mandatory	Type	Description
containerName	No	String	Container name: required for volumes, optional for env vars

Parameter	Mandatory	Type	Description
divisor	No	String	Specifies the output format of the exposed resources, defaults to "1"
resource	Yes	String	Required: resource to select

**Table 5-2710** io.k8s.api.core.v1.SecretProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret or its key must be defined

**Table 5-2711** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Mandatory	Type	Description
audience	No	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	No	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	Yes	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-2712** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Mandatory	Type	Description
group	No	String	Group to map volume access to Default is no group
readOnly	No	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	Yes	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes

Parameter	Mandatory	Type	Description
tenant	No	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	No	String	User to map volume access to Defaults to serviceaccount user
volume	Yes	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-2713** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	Yes	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	No	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Yes	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
pool	No	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	No	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-2714** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	Yes	String	The host address of the ScaleIO API Gateway.
protectionDomain	No	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	Yes	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	No	Boolean	Flag to enable/disable SSL communication with Gateway, default false

Parameter	Mandatory	Type	Description
storageMode	No	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	No	String	The ScaleIO Storage Pool associated with the protection domain.
system	Yes	String	The name of the storage system as configured in ScaleIO.
volumeName	No	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-2715** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.

Parameter	Mandatory	Type	Description
items	No	Array of <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	No	Boolean	Specify whether the Secret or its keys must be defined
secretName	No	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-2716** io.k8s.api.core.v1.KeyToPath

Parameter	Mandatory	Type	Description
key	Yes	String	The key to project.
mode	No	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.

Parameter	Mandatory	Type	Description
path	Yes	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-2717** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	No	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.



Parameter	Mandatory	Type	Description
volumeNamespace	No	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-2718** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	No	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	No	String	Storage Policy Based Management (SPBM) profile name.
volumePath	Yes	String	Path that identifies vSphere volume vmdk

**Table 5-2719** io.k8s.api.apps.v1.DeploymentStatus

Parameter	Mandatory	Type	Description
availableReplicas	No	Integer	Total number of available pods (ready for at least minReadySeconds) targeted by this deployment.

Parameter	Mandatory	Type	Description
collisionCount	No	Integer	Count of hash collisions for the Deployment. The Deployment controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ReplicaSet.
conditions	No	Array of <a href="#">io.k8s.api.apps.v1.DeploymentCondition</a> objects	Represents the latest available observations of a deployment's current state.
observedGeneration	No	Long	The generation observed by the deployment controller.
readyReplicas	No	Integer	Total number of ready pods targeted by this deployment.
replicas	No	Integer	Total number of non-terminated pods targeted by this deployment (their labels match the selector).
unavailableReplicas	No	Integer	Total number of unavailable pods targeted by this deployment. This is the total number of pods that are still required for the deployment to have 100% available capacity. They may either be pods that are running but not yet available or pods that still have not been created.
updatedReplicas	No	Integer	Total number of non-terminated pods targeted by this deployment that have the desired template spec.

**Table 5-2720** io.k8s.api.apps.v1.DeploymentCondition

Parameter	Mandatory	Type	Description
lastTransitionTime	No	String	Last time the condition transitioned from one status to another.
lastUpdateTime	No	String	The last time this condition was updated.

Parameter	Mandatory	Type	Description
message	No	String	A human readable message indicating details about the transition.
reason	No	String	The reason for the condition's last transition.
status	Yes	String	Status of the condition, one of True, False, Unknown.
type	Yes	String	Type of deployment condition.

## Response Parameters

Status code: 200

Table 5-2721 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object metadata.
spec	<a href="#">io.k8s.api.apps.v1.DeploymentSpec</a> object	Specification of the desired behavior of the Deployment.
status	<a href="#">io.k8s.api.apps.v1.DeploymentStatus</a> object	Most recently observed status of the Deployment.

**Table 5-2722** io.k8s.api.apps.v1.DeploymentSpec

Parameter	Type	Description
minReadySeconds	Integer	Minimum number of seconds for which a newly created pod should be ready without any of its container crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)
paused	Boolean	Indicates that the deployment is paused.
progressDeadlineSeconds	Integer	The maximum time in seconds for a deployment to make progress before it is considered to be failed. The deployment controller will continue to process failed deployments and a condition with a ProgressDeadlineExceeded reason will be surfaced in the deployment status. Note that progress will not be estimated during the time a deployment is paused. Defaults to 600s.
replicas	Integer	Number of desired pods. This is a pointer to distinguish between explicit zero and not specified. Defaults to 1.
revisionHistoryLimit	Integer	The number of old ReplicaSets to retain to allow rollback. This is a pointer to distinguish between explicit zero and not specified. Defaults to 10.
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	Label selector for pods. Existing ReplicaSets whose pods are selected by this will be the ones affected by this deployment. It must match the pod template's labels.
strategy	<a href="#">io.k8s.api.apps.v1.DeploymentStrategy</a> object	The deployment strategy to use to replace existing pods with new ones.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Template describes the pods that will be created.

**Table 5-2723** io.k8s.api.apps.v1.DeploymentStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateDeployment</a> object	Rolling update config params. Present only if DeploymentStrategyType = RollingUpdate.
type	String	Type of deployment. Can be "Recreate" or "RollingUpdate". Default is RollingUpdate.

**Table 5-2724** io.k8s.api.apps.v1.RollingUpdateDeployment

Parameter	Type	Description
maxSurge	String	The maximum number of pods that can be scheduled above the desired number of pods. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). This can not be 0 if MaxUnavailable is 0. Absolute number is calculated from percentage by rounding up. Defaults to 25%. Example: when this is set to 30%, the new ReplicaSet can be scaled up immediately when the rolling update starts, such that the total number of old and new pods do not exceed 130% of desired pods. Once old pods have been killed, new ReplicaSet can be scaled up further, ensuring that total number of pods running at any time during the update is at most 130% of desired pods.
maxUnavailable	String	The maximum number of pods that can be unavailable during the update. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). Absolute number is calculated from percentage by rounding down. This can not be 0 if MaxSurge is 0. Defaults to 25%. Example: when this is set to 30%, the old ReplicaSet can be scaled down to 70% of desired pods immediately when the rolling update starts. Once new pods are ready, old ReplicaSet can be scaled down further, followed by scaling up the new ReplicaSet, ensuring that the total number of pods available at all times during the update is at least 70% of desired pods.

**Table 5-2725** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-2726** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.

Parameter	Type	Description
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>

Parameter	Type	Description
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	nodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>



Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/types/#io.k8s.api.core.v1.PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-2727** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-2728** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-2729** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.

Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-2730** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-2731** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-2732** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-2733** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-2734** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-2735** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-2736** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-2737** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-2738** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option



**Table 5-2739** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2740** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-2741** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-2742** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2743** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".



Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-2744** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-2745** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-2746** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-2747** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-2748** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-2749** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-2750** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-2751** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-2752** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-2753** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2754** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-2755** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-2756** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-2757** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-2758** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-2759** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-2760** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-2761** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.



Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-2762** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-2763** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-2764** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-2765** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>
fsGroupChangePolicy	String	<p>fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".</p>
runAsGroup	Long	<p>The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>
runAsNonRoot	Boolean	<p>Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.</p>
runAsUser	Long	<p>The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2766** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-2767** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-2768** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-2769** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2770** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-2771** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-2772** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>



Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-2773** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-2774** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-2775** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-2776** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-2777** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-2778** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-2779** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-2780** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-2781** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-2782** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-2783** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.



**Table 5-2784** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-2785** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-2786** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2787** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-2788** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-2789** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-2790** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-2791** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.



Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-2792** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-2793** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-2794** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-2795** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-2796** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-2797** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-2798** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-2799** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-2800** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-2801** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-2802** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-2803** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-2804** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-2805** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-2806** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-2807** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-2808** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file



**Table 5-2809** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-2810** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-2811** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-2812** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-2813** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-2814** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-2815** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-2816** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-2817** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-2818** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-2819** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-2820** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-2821** io.k8s.api.apps.v1.DeploymentStatus

Parameter	Type	Description
availableReplicas	Integer	Total number of available pods (ready for at least minReadySeconds) targeted by this deployment.
collisionCount	Integer	Count of hash collisions for the Deployment. The Deployment controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ReplicaSet.
conditions	Array of <a href="#">io.k8s.api.apps.v1.DeploymentCondition</a> objects	Represents the latest available observations of a deployment's current state.
observedGeneration	Long	The generation observed by the deployment controller.
readyReplicas	Integer	Total number of ready pods targeted by this deployment.
replicas	Integer	Total number of non-terminated pods targeted by this deployment (their labels match the selector).
unavailableReplicas	Integer	Total number of unavailable pods targeted by this deployment. This is the total number of pods that are still required for the deployment to have 100% available capacity. They may either be pods that are running but not yet available or pods that still have not been created.

Parameter	Type	Description
updatedReplicas	Integer	Total number of non-terminated pods targeted by this deployment that have the desired template spec.

**Table 5-2822** io.k8s.api.apps.v1.DeploymentCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
lastUpdateTime	String	The last time this condition was updated.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of deployment condition.

**Status code: 201**

**Table 5-2823** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>



Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object metadata.
spec	<a href="#">io.k8s.api.apps.v1.DeploymentSpec</a> object	Specification of the desired behavior of the Deployment.
status	<a href="#">io.k8s.api.apps.v1.DeploymentStatus</a> object	Most recently observed status of the Deployment.

**Table 5-2824** io.k8s.api.apps.v1.DeploymentSpec

Parameter	Type	Description
minReadySeconds	Integer	Minimum number of seconds for which a newly created pod should be ready without any of its container crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)
paused	Boolean	Indicates that the deployment is paused.
progressDeadlineSeconds	Integer	The maximum time in seconds for a deployment to make progress before it is considered to be failed. The deployment controller will continue to process failed deployments and a condition with a ProgressDeadlineExceeded reason will be surfaced in the deployment status. Note that progress will not be estimated during the time a deployment is paused. Defaults to 600s.
replicas	Integer	Number of desired pods. This is a pointer to distinguish between explicit zero and not specified. Defaults to 1.
revisionHistoryLimit	Integer	The number of old ReplicaSets to retain to allow rollback. This is a pointer to distinguish between explicit zero and not specified. Defaults to 10.

Parameter	Type	Description
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	Label selector for pods. Existing ReplicaSets whose pods are selected by this will be the ones affected by this deployment. It must match the pod template's labels.
strategy	<a href="#">io.k8s.api.apps.v1.DeploymentStrategy</a> object	The deployment strategy to use to replace existing pods with new ones.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Template describes the pods that will be created.

**Table 5-2825** io.k8s.api.apps.v1.DeploymentStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateDeployment</a> object	Rolling update config params. Present only if DeploymentStrategyType = RollingUpdate.
type	String	Type of deployment. Can be "Recreate" or "RollingUpdate". Default is RollingUpdate.

**Table 5-2826** io.k8s.api.apps.v1.RollingUpdateDeployment

Parameter	Type	Description
maxSurge	String	The maximum number of pods that can be scheduled above the desired number of pods. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). This can not be 0 if MaxUnavailable is 0. Absolute number is calculated from percentage by rounding up. Defaults to 25%. Example: when this is set to 30%, the new ReplicaSet can be scaled up immediately when the rolling update starts, such that the total number of old and new pods do not exceed 130% of desired pods. Once old pods have been killed, new ReplicaSet can be scaled up further, ensuring that total number of pods running at any time during the update is at most 130% of desired pods.

Parameter	Type	Description
maxUnavailable	String	The maximum number of pods that can be unavailable during the update. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). Absolute number is calculated from percentage by rounding down. This can not be 0 if MaxSurge is 0. Defaults to 25%. Example: when this is set to 30%, the old ReplicaSet can be scaled down to 70% of desired pods immediately when the rolling update starts. Once new pods are ready, old ReplicaSet can be scaled down further, followed by scaling up the new ReplicaSet, ensuring that the total number of pods available at all times during the update is at least 70% of desired pods.

**Table 5-2827** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-2828** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.

Parameter	Type	Description
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.

Parameter	Type	Description
hostname	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/objects/PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-2829** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.



Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-2830** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-2831** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.

Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-2832** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-2833** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-2834** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-2835** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-2836** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-2837** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-2838** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-2839** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-2840** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-2841** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.



Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2842** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-2843** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-2844** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2845** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-2846** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-2847** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-2848** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-2849** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-2850** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-2851** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-2852** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-2853** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.



Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-2854** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-2855** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2856** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-2857** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCP socket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-2858** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-2859** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-2860** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-2861** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-2862** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-2863** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-2864** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-2865** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-2866** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-2867** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>
fsGroupChangePolicy	String	<p>fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".</p>
runAsGroup	Long	<p>The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>
runAsNonRoot	Boolean	<p>Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.</p>
runAsUser	Long	<p>The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2868** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.



**Table 5-2869** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-2870** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-2871** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-2872** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-2873** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-2874** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-2875** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-2876** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared



Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-2877** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-2878** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-2879** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-2880** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-2881** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-2882** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-2883** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-2884** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-2885** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-2886** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>



Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-2887** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-2888** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2889** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-2890** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-2891** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-2892** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-2893** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-2894** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-2895** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-2896** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-2897** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-2898** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-2899** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-2900** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>



Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-2901** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-2902** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-2903** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-2904** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-2905** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-2906** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-2907** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-2908** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-2909** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-2910** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-2911** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-2912** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-2913** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-2914** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-2915** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-2916** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-2917** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>



Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-2918** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-2919** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-2920** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-2921** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-2922** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-2923** io.k8s.api.apps.v1.DeploymentStatus

Parameter	Type	Description
availableReplicas	Integer	Total number of available pods (ready for at least minReadySeconds) targeted by this deployment.
collisionCount	Integer	Count of hash collisions for the Deployment. The Deployment controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ReplicaSet.
conditions	Array of <a href="#">io.k8s.api.apps.v1.DeploymentCondition</a> objects	Represents the latest available observations of a deployment's current state.
observedGeneration	Long	The generation observed by the deployment controller.
readyReplicas	Integer	Total number of ready pods targeted by this deployment.
replicas	Integer	Total number of non-terminated pods targeted by this deployment (their labels match the selector).
unavailableReplicas	Integer	Total number of unavailable pods targeted by this deployment. This is the total number of pods that are still required for the deployment to have 100% available capacity. They may either be pods that are running but not yet available or pods that still have not been created.

Parameter	Type	Description
updatedReplicas	Integer	Total number of non-terminated pods targeted by this deployment that have the desired template spec.

**Table 5-2924** io.k8s.api.apps.v1.DeploymentCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
lastUpdateTime	String	The last time this condition was updated.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of deployment condition.

## Example Requests

Changing the image of an existing Deployment to ...:20202/cci/redis:V1

```
{
  "apiVersion": "apps/v1",
  "kind": "Deployment",
  "metadata": {
    "name": "deployment-test"
  },
  "spec": {
    "replicas": 2,
    "selector": {
      "matchLabels": {
        "app": "redis"
      }
    },
    "template": {
      "metadata": {
        "labels": {
          "app": "redis"
        }
      },
      "spec": {
        "containers": [ {
          "image": "***:20202/cci/redis:V1",
          "name": "container-0",
          "resources": {
            "limits": {
              "cpu": "500m",
              "memory": "1024Mi"
            },
            "requests": {
```

```
        "cpu" : "500m",
        "memory" : "1024Mi"
    }
  },
  "imagePullSecrets" : [ {
    "name" : "imagepull-secret"
  } ]
}
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion" : "apps/v1",
  "kind" : "Deployment",
  "metadata" : {
    "creationTimestamp" : "2018-09-06T03:39:32Z",
    "generation" : 2,
    "labels" : {
      "app" : "redis"
    },
    "name" : "deployment-test",
    "namespace" : "namespace-test",
    "resourceVersion" : "5636210",
    "selfLink" : "/apis/apps/v1/namespaces/namespace-test/deployments/deployment-test",
    "uid" : "777dce52-b186-11e8-8cb0-c81fbc371a17"
  },
  "spec" : {
    "progressDeadlineSeconds" : 600,
    "replicas" : 2,
    "revisionHistoryLimit" : 10,
    "selector" : {
      "matchLabels" : {
        "app" : "redis"
      }
    },
    "strategy" : {
      "rollingUpdate" : {
        "maxSurge" : "25%",
        "maxUnavailable" : "25%"
      },
      "type" : "RollingUpdate"
    },
    "template" : {
      "metadata" : {
        "creationTimestamp" : null,
        "labels" : {
          "app" : "redis"
        }
      },
      "spec" : {
        "containers" : [ {
          "image" : "redis",
          "imagePullPolicy" : "IfNotPresent",
          "name" : "container-0",
          "resources" : {
            "limits" : {
              "cpu" : "500m",
              "memory" : "1Gi"
            },
            "requests" : {
              "cpu" : "500m",
```

```

        "memory": "1Gi"
      }
    },
    "terminationMessagePath": "/dev/termination-log",
    "terminationMessagePolicy": "File"
  }],
  "dnsPolicy": "ClusterFirst",
  "imagePullSecrets": [ {
    "name": "imagepull-secret"
  } ],
  "restartPolicy": "Always",
  "schedulerName": "default-scheduler",
  "securityContext": { }
}
},
"status": {
  "availableReplicas": 1,
  "conditions": [ {
    "lastTransitionTime": "2018-09-06T03:39:40Z",
    "lastUpdateTime": "2018-09-06T03:39:40Z",
    "message": "Deployment has minimum availability.",
    "reason": "MinimumReplicasAvailable",
    "status": "True",
    "type": "Available"
  }, {
    "lastTransitionTime": "2018-09-06T03:39:32Z",
    "lastUpdateTime": "2018-09-06T03:39:40Z",
    "message": "ReplicaSet \"deployment-test-865578b586\" has successfully\rprogressed.",
    "reason": "NewReplicaSetAvailable",
    "status": "True",
    "type": "Progressing"
  } ],
  "observedGeneration": 1,
  "readyReplicas": 1,
  "replicas": 1,
  "updatedReplicas": 1
}
}
}

```

## Status Codes

Status Code	Description
200	OK
201	Created
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType

Status Code	Description
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.5.9 Querying the Scaling Operation of a Specified Deployment

### Function

This API is used to query the scaling operation of a specified Deployment.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/apps/v1/namespaces/{namespace}/deployments/{name}/scale

**Table 5-2925** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Scale
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-2926** Query Parameters

Parameter	Mandatory	Type	Description
pretty	No	String	If 'true', then the output is pretty printed.



## Request Parameters

**Table 5-2927** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-2928** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object metadata; More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a> .
spec	<a href="#">io.k8s.api.autoscaling.v1.ScaleSpec</a> object	defines the behavior of the scale. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a> .
status	<a href="#">io.k8s.api.autoscaling.v1.ScaleStatus</a> object	current status of the scale. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a> . Read-only.

**Table 5-2929** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2930** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-2931** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2932** io.k8s.api.autoscaling.v1.ScaleSpec

Parameter	Type	Description
replicas	Integer	desired number of instances for the scaled object.

**Table 5-2933** io.k8s.api.autoscaling.v1.ScaleStatus

Parameter	Type	Description
replicas	Integer	actual number of observed instances of the scaled object.
selector	String	label query over pods that should match the replicas count. This is same as the label selector but in the string format to avoid introspection by clients. The string will be in the same format as the query-param syntax. More info about label selectors: <a href="http://kubernetes.io/docs/user-guide/labels#label-selectors">http://kubernetes.io/docs/user-guide/labels#label-selectors</a>

### Example Requests

None

### Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "autoscaling/v1",
  "kind": "Scale",
  "metadata": {
    "creationTimestamp": "2022-08-30T09:23:43Z",
    "name": "nginx",
    "namespace": "test-api",
    "resourceVersion": "34017936",
    "selfLink": "/apis/apps/v1/namespaces/test-api/deployments/nginx/scale",
    "uid": "3bd1306c-ac3e-41c2-81ab-14c79fa006d3"
  },
  "spec": {
    "replicas": 2
  },
  "status": {
    "replicas": 2,
    "selector": "app=nginx"
  }
}
```

### Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden



Status Code	Description
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.5.10 Updating the Scaling Operation of a Specified Deployment

### Function

This API is used to partially update scale of the specified Scale.

The following fields can be updated:

- metadata.resourceVersion
- metadata.creationTimestamp
- spec.replicas

### Calling Method

For details, see [Calling APIs](#).

### URI

PATCH /apis/apps/v1/namespaces/{namespace}/deployments/{name}/scale

**Table 5-2934** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Scale
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-2935** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> . This field is required for apply requests (application/apply-patch) but optional for non-apply patch types (JsonPatch, MergePatch, StrategicMergePatch).
force	No	Boolean	Force is going to "force" Apply requests. It means user will re-acquire conflicting fields owned by other people. Force flag must be unset for non-apply patch requests.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-2936** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	<p>Currently, three types of patch request methods are supported. For details, see "Update API Objects in Place Using kubectl patch" (<a href="https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/">https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/</a>).</p> <ul style="list-style-type: none"> <li>• <b>Json Patch, Content-Type: application/json-patch+json</b> As defined in RFC6902, Json Patch contains a series of operations on a JSON object. After receiving the object, the server applies the represented operations to the JSON object.</li> <li>• <b>Merge Patch, Content-Type: application/merge-patch+json</b> According to RFC 7386, Merge Patch contains some description of a JSON object. The JSON object is submitted to the server end and merges with the current object of the server end, which means to replace the list field of the current resource object to form a new object.</li> <li>• <b>Strategic Merge Patch, Content-Type: application/strategic-merge-patch+json</b> Strategic Merge Patch is used to add legal metadata to API objects and uses new metadata to determine which lists should be merged and which ones should not. The current metadata is used as the structure labels.</li> </ul>

**Table 5-2937** Request body parameters

Parameter	Mandatory	Type	Description
-	Yes	Object	Patch is provided to give a concrete name and type to the Kubernetes PATCH request body.

## Response Parameters

Status code: 200

**Table 5-2938** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object metadata; More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a> .
spec	<a href="#">io.k8s.api.autoscaling.v1.ScaleSpec</a> object	defines the behavior of the scale. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a> .
status	<a href="#">io.k8s.api.autoscaling.v1.ScaleStatus</a> object	current status of the scale. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a> . Read-only.

**Table 5-2939** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.
generateName	String	GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.  If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).  Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a>
generation	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.



Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2940** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-2941** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2942** io.k8s.api.autoscaling.v1.ScaleSpec

Parameter	Type	Description
replicas	Integer	desired number of instances for the scaled object.

**Table 5-2943** io.k8s.api.autoscaling.v1.ScaleStatus

Parameter	Type	Description
replicas	Integer	actual number of observed instances of the scaled object.
selector	String	label query over pods that should match the replicas count. This is same as the label selector but in the string format to avoid introspection by clients. The string will be in the same format as the query-param syntax. More info about label selectors: <a href="http://kubernetes.io/docs/user-guide/labels#label-selectors">http://kubernetes.io/docs/user-guide/labels#label-selectors</a>

## Example Requests

Updating the scaling operation of a specified Deployment

```
[ {
  "op": "add",
  "path": "/spec/replicas",
  "value": 2
}]
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "autoscaling/v1",
  "kind": "Scale",
  "metadata": {
    "creationTimestamp": "2022-08-30T09:23:43Z",
    "name": "nginx",
    "namespace": "test-api",
    "resourceVersion": "34017936",
    "selfLink": "/apis/apps/v1/namespaces/test-api/deployments/nginx/scale",
    "uid": "3bd1306c-ac3e-41c2-81ab-14c79fa006d3"
  },
  "spec": {
    "replicas": 2
  },
  "status": {
    "replicas": 2,
    "selector": "app=nginx"
  }
}
```

## Status Codes

Status Code	Description
200	OK

Status Code	Description
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.5.11 Replacing the Scaling Operation of a Specified Deployment

### Function

This API is used to replace scale of the specified Scale.

The following fields can be updated:

- metadata.resourceVersion
- metadata.creationTimestamp
- spec.replicas

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /apis/apps/v1/namespaces/{namespace}/deployments/{name}/scale

**Table 5-2944** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Scale
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-2945** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-2946** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-2947** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object metadata; More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a> .
spec	No	<a href="#">io.k8s.api.autoscaling.v1.ScaleSpec</a> object	defines the behavior of the scale. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a> .

Parameter	Mandatory	Type	Description
status	No	<a href="#">io.k8s.api.autoscaling.v1.ScaleStatus</a> object	current status of the scale. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a> . Read-only.

**Table 5-2948** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Mandatory	Type	Description
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.



Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-2949** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-2950** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2951** io.k8s.api.autoscaling.v1.ScaleSpec

Parameter	Mandatory	Type	Description
replicas	No	Integer	desired number of instances for the scaled object.

**Table 5-2952** io.k8s.api.autoscaling.v1.ScaleStatus

Parameter	Mandatory	Type	Description
replicas	Yes	Integer	actual number of observed instances of the scaled object.

Parameter	Mandatory	Type	Description
selector	No	String	label query over pods that should match the replicas count. This is same as the label selector but in the string format to avoid introspection by clients. The string will be in the same format as the query-param syntax. More info about label selectors: <a href="http://kubernetes.io/docs/user-guide/labels#label-selectors">http://kubernetes.io/docs/user-guide/labels#label-selectors</a>

## Response Parameters

Status code: 200

Table 5-2953 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object metadata; More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a> .
spec	<a href="#">io.k8s.api.autoscaling.v1.ScaleSpec</a> object	defines the behavior of the scale. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a> .



Parameter	Type	Description
status	<a href="#">io.k8s.api.autoscaling.v1.ScaleStatus</a> object	current status of the scale. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a> . Read-only.

**Table 5-2954** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2955** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-2956** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2957** io.k8s.api.autoscaling.v1.ScaleSpec

Parameter	Type	Description
replicas	Integer	desired number of instances for the scaled object.

**Table 5-2958** io.k8s.api.autoscaling.v1.ScaleStatus

Parameter	Type	Description
replicas	Integer	actual number of observed instances of the scaled object.
selector	String	label query over pods that should match the replicas count. This is same as the label selector but in the string format to avoid introspection by clients. The string will be in the same format as the query-param syntax. More info about label selectors: <a href="http://kubernetes.io/docs/user-guide/labels#label-selectors">http://kubernetes.io/docs/user-guide/labels#label-selectors</a>

**Status code: 201**

**Table 5-2959** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object metadata; More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a> .
spec	<a href="#">io.k8s.api.autoscaling.v1.ScaleSpec</a> object	defines the behavior of the scale. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a> .
status	<a href="#">io.k8s.api.autoscaling.v1.ScaleStatus</a> object	current status of the scale. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a> . Read-only.

**Table 5-2960** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.



Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2961** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-2962** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-2963** io.k8s.api.autoscaling.v1.ScaleSpec

Parameter	Type	Description
replicas	Integer	desired number of instances for the scaled object.

**Table 5-2964** io.k8s.api.autoscaling.v1.ScaleStatus

Parameter	Type	Description
replicas	Integer	actual number of observed instances of the scaled object.
selector	String	label query over pods that should match the replicas count. This is same as the label selector but in the string format to avoid introspection by clients. The string will be in the same format as the query-param syntax. More info about label selectors: <a href="http://kubernetes.io/docs/user-guide/labels#label-selectors">http://kubernetes.io/docs/user-guide/labels#label-selectors</a>

## Example Requests

Replacing the scaling operation of a specified Deployment

```
{
  "apiVersion": "autoscaling/v1",
  "kind": "Scale",
  "metadata": {
    "creationTimestamp": "2022-08-30T09:23:43Z",
    "name": "nginx",
    "namespace": "test-api",
    "resourceVersion": "34017936",
    "selfLink": "/apis/apps/v1/namespaces/test-api/deployments/nginx/scale",
    "uid": "3bd1306c-ac3e-41c2-81ab-14c79fa006d3"
  },
  "spec": {
    "replicas": 2
  },
  "status": {
    "replicas": 2,
    "selector": "app=nginx"
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "autoscaling/v1",
  "kind": "Scale",
  "metadata": {
    "creationTimestamp": "2022-08-30T09:23:43Z",
    "name": "nginx",
    "namespace": "test-api",
    "resourceVersion": "34017936",
    "selfLink": "/apis/apps/v1/namespaces/test-api/deployments/nginx/scale",
    "uid": "3bd1306c-ac3e-41c2-81ab-14c79fa006d3"
  },
  "spec": {
    "replicas": 2
  },
  "status": {
    "replicas": 2,

```

```
"selector" : "app=nginx"  
}  
}
```

## Status Codes

Status Code	Description
200	OK
201	Created
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.5.12 Querying the Status of a Deployment

### Function

This API is used to query the status of a specified Deployment.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/apps/v1/namespaces/{namespace}/deployments/{name}/status

**Table 5-2965** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Deployment
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-2966** Query Parameters

Parameter	Mandatory	Type	Description
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-2967** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

**Status code: 200**

**Table 5-2968** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>



Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object metadata.
spec	<a href="#">io.k8s.api.apps.v1.DeploymentSpec</a> object	Specification of the desired behavior of the Deployment.
status	<a href="#">io.k8s.api.apps.v1.DeploymentStatus</a> object	Most recently observed status of the Deployment.

**Table 5-2969** io.k8s.api.apps.v1.DeploymentSpec

Parameter	Type	Description
minReadySeconds	Integer	Minimum number of seconds for which a newly created pod should be ready without any of its container crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)
paused	Boolean	Indicates that the deployment is paused.
progressDeadlineSeconds	Integer	The maximum time in seconds for a deployment to make progress before it is considered to be failed. The deployment controller will continue to process failed deployments and a condition with a ProgressDeadlineExceeded reason will be surfaced in the deployment status. Note that progress will not be estimated during the time a deployment is paused. Defaults to 600s.
replicas	Integer	Number of desired pods. This is a pointer to distinguish between explicit zero and not specified. Defaults to 1.

Parameter	Type	Description
revisionHistoryLimit	Integer	The number of old ReplicaSets to retain to allow rollback. This is a pointer to distinguish between explicit zero and not specified. Defaults to 10.
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	Label selector for pods. Existing ReplicaSets whose pods are selected by this will be the ones affected by this deployment. It must match the pod template's labels.
strategy	<a href="#">io.k8s.api.apps.v1.DeploymentStrategy</a> object	The deployment strategy to use to replace existing pods with new ones.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Template describes the pods that will be created.

**Table 5-2970** io.k8s.api.apps.v1.DeploymentStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateDeployment</a> object	Rolling update config params. Present only if DeploymentStrategyType = RollingUpdate.
type	String	Type of deployment. Can be "Recreate" or "RollingUpdate". Default is RollingUpdate.

**Table 5-2971** io.k8s.api.apps.v1.RollingUpdateDeployment

Parameter	Type	Description
maxSurge	String	The maximum number of pods that can be scheduled above the desired number of pods. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). This can not be 0 if MaxUnavailable is 0. Absolute number is calculated from percentage by rounding up. Defaults to 25%. Example: when this is set to 30%, the new ReplicaSet can be scaled up immediately when the rolling update starts, such that the total number of old and new pods do not exceed 130% of desired pods. Once old pods have been killed, new ReplicaSet can be scaled up further, ensuring that total number of pods running at any time during the update is at most 130% of desired pods.
maxUnavailable	String	The maximum number of pods that can be unavailable during the update. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). Absolute number is calculated from percentage by rounding down. This can not be 0 if MaxSurge is 0. Defaults to 25%. Example: when this is set to 30%, the old ReplicaSet can be scaled down to 70% of desired pods immediately when the rolling update starts. Once new pods are ready, old ReplicaSet can be scaled down further, followed by scaling up the new ReplicaSet, ensuring that the total number of pods available at all times during the update is at least 70% of desired pods.

**Table 5-2972** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-2973** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.

Parameter	Type	Description
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>

Parameter	Type	Description
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.

Parameter	Type	Description
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://github.com/kubernetes/api/blob/master/core/v1/pod_readiness_gates.go">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="https://github.com/kubernetes/api/blob/master/core/v1/pod_security_context.go">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.

Parameter	Type	Description
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="https://kubernetes.io/api-reference/v1.27/types/#io.k8s.api.core.v1.Toleration">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.



Parameter	Type	Description
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-2974** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-2975** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-2976** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-2977** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-2978** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-2979** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-2980** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-2981** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-2982** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-2983** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-2984** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-2985** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-2986** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.



Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2987** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-2988** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-2989** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-2990** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-2991** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-2992** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-2993** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-2994** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-2995** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-2996** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-2997** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-2998** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.



Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-2999** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-3000** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-3001** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-3002** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-3003** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-3004** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-3005** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-3006** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-3007** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-3008** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-3009** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-3010** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-3011** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-3012** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-3013** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.



**Table 5-3014** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-3015** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-3016** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-3017** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-3018** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-3019** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-3020** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-3021** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared



Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-3022** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-3023** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-3024** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-3025** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-3026** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-3027** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-3028** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-3029** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-3030** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-3031** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>



Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3032** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3033** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3034** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-3035** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-3036** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-3037** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-3038** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-3039** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-3040** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-3041** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-3042** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-3043** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-3044** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-3045** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>



Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-3046** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-3047** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-3048** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-3049** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-3050** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-3051** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-3052** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-3053** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-3054** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-3055** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-3056** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-3057** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-3058** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-3059** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-3060** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-3061** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-3062** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>



Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-3063** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-3064** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-3065** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-3066** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-3067** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-3068** io.k8s.api.apps.v1.DeploymentStatus

Parameter	Type	Description
availableReplicas	Integer	Total number of available pods (ready for at least minReadySeconds) targeted by this deployment.
collisionCount	Integer	Count of hash collisions for the Deployment. The Deployment controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ReplicaSet.
conditions	Array of <a href="#">io.k8s.api.apps.v1.DeploymentCondition</a> objects	Represents the latest available observations of a deployment's current state.
observedGeneration	Long	The generation observed by the deployment controller.
readyReplicas	Integer	Total number of ready pods targeted by this deployment.
replicas	Integer	Total number of non-terminated pods targeted by this deployment (their labels match the selector).
unavailableReplicas	Integer	Total number of unavailable pods targeted by this deployment. This is the total number of pods that are still required for the deployment to have 100% available capacity. They may either be pods that are running but not yet available or pods that still have not been created.

Parameter	Type	Description
updatedReplicas	Integer	Total number of non-terminated pods targeted by this deployment that have the desired template spec.

**Table 5-3069** io.k8s.api.apps.v1.DeploymentCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
lastUpdateTime	String	The last time this condition was updated.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of deployment condition.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "apps/v1",
  "kind": "Deployment",
  "metadata": {
    "annotations": {
      "deployment.kubernetes.io/revision": "1"
    },
    "creationTimestamp": "2018-09-06T03:39:32Z",
    "generation": 1,
    "labels": {
      "app": "redis"
    },
    "name": "deployment-test",
    "namespace": "namespace-test",
    "resourceVersion": "5630865",
    "selfLink": "/apis/apps/v1/namespaces/namespace-test/deployments/deployment-test/status",
    "uid": "777dce52-b186-11e8-8cb0-c81fbe371a17"
  },
  "spec": {
    "progressDeadlineSeconds": 600,
    "replicas": 1,
```

```
"revisionHistoryLimit" : 10,
"selector" : {
  "matchLabels" : {
    "app" : "redis"
  }
},
"strategy" : {
  "rollingUpdate" : {
    "maxSurge" : "25%",
    "maxUnavailable" : "25%"
  },
  "type" : "RollingUpdate"
},
"template" : {
  "metadata" : {
    "annotations" : {
      "cri.cci.io/container-type" : "secure-container"
    },
    "creationTimestamp" : null,
    "labels" : {
      "app" : "redis"
    }
  },
  "spec" : {
    "containers" : [ {
      "image" : "redis",
      "imagePullPolicy" : "IfNotPresent",
      "name" : "container-0",
      "resources" : {
        "limits" : {
          "cpu" : "500m",
          "memory" : "1Gi"
        },
        "requests" : {
          "cpu" : "500m",
          "memory" : "1Gi"
        }
      },
      "terminationMessagePath" : "/dev/termination-log",
      "terminationMessagePolicy" : "File"
    } ],
    "dnsPolicy" : "ClusterFirst",
    "imagePullSecrets" : [ {
      "name" : "imagepull-secret"
    } ],
    "restartPolicy" : "Always",
    "schedulerName" : "default-scheduler",
    "securityContext" : { }
  }
},
"status" : {
  "availableReplicas" : 1,
  "conditions" : [ {
    "lastTransitionTime" : "2018-09-06T03:39:40Z",
    "lastUpdateTime" : "2018-09-06T03:39:40Z",
    "message" : "Deployment has minimum availability.",
    "reason" : "MinimumReplicasAvailable",
    "status" : "True",
    "type" : "Available"
  }, {
    "lastTransitionTime" : "2018-09-06T03:39:32Z",
    "lastUpdateTime" : "2018-09-06T03:39:40Z",
    "message" : "ReplicaSet \"deployment-test-865578b586\" has successfully\rprogressed.",
    "reason" : "NewReplicaSetAvailable",
    "status" : "True",
    "type" : "Progressing"
  } ],
  "observedGeneration" : 1,
```

```
"readyReplicas" : 1,  
"replicas" : 1,  
"updatedReplicas" : 1  
}  
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.6 Ingress

### 5.6.1 Deleting Ingresses in a Namespace

#### Function

This API is used to delete all ingresses in a specified namespace.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

DELETE /apis/extensions/v1beta1/namespaces/{namespace}/ingresses

**Table 5-3070** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects



**Table 5-3071** Query Parameters

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset

Parameter	Mandatory	Type	Description
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3072** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-3073** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-3074** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

Status code: 200

**Table 5-3075** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>



**Table 5-3076** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3077** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional.  Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"

Parameter	Type	Description
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-3078** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion" : "extensions/v1beta1",
  "items" : null,
  "kind" : "IngressList",
  "metadata" : {
    "resourceVersion" : "5160862",
    "selfLink" : "/apis/extensions/v1beta1/namespaces/namespace-test/ingresses"
  }
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed

Status Code	Description
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.6.2 Querying Ingresses in a Namespace

### Function

This API is used to query the details about all ingresses in a specified namespace.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/extensions/v1beta1/namespaces/{namespace}/ingresses

**Table 5-3079** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3080** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.



## Request Parameters

Table 5-3081 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

Table 5-3082 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.extensions.v1beta1.Ingress</a> objects	Items is the list of Ingress.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

**Table 5-3083** io.k8s.api.extensions.v1beta1.Ingress

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.extensions.v1beta1.IngressSpec</a> object	Spec is the desired state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.extensions.v1beta1.IngressStatus</a> object	Status is the current state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3084** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3085** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3086** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>



**Table 5-3087** io.k8s.api.extensions.v1beta1.IngressSpec

Parameter	Type	Description
backend	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	A default backend capable of servicing requests that don't match any rule. At least one of 'backend' or 'rules' must be specified. This field is optional to allow the loadbalancer controller or defaulting logic to specify a global default.
ingressClassName	String	IngressClassName is the name of the IngressClass cluster resource. The associated IngressClass defines which controller will implement the resource. This replaces the deprecated <i>kubernetes.io/ingress.class</i> annotation. For backwards compatibility, when that annotation is set, it must be given precedence over this field. The controller may emit a warning if the field and annotation have different values. Implementations of this API should ignore Ingresses without a class specified. An IngressClass resource may be marked as default, which can be used to set a default value for this field. For more information, refer to the IngressClass documentation.
rules	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressRule</a> objects	A list of host rules used to configure the Ingress. If unspecified, or no rule matches, all traffic is sent to the default backend.
tls	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressTLS</a> objects	TLS configuration. Currently the Ingress only supports a single TLS port, 443. If multiple members of this list specify different hosts, they will be multiplexed on the same port according to the hostname specified through the SNI TLS extension, if the ingress controller fulfilling the ingress supports SNI.

**Table 5-3088** io.k8s.api.extensions.v1beta1.IngressRule

Parameter	Type	Description
host	String	<p>Host is the fully qualified domain name of a network host, as defined by RFC 3986. Note the following deviations from the "host" part of the URI as defined in RFC 3986: 1. IPs are not allowed. Currently an IngressRuleValue can only apply to the IP in the Spec of the parent Ingress. 2. The : delimiter is not respected because ports are not allowed. Currently the port of an Ingress is implicitly :80 for http and :443 for https. Both these may change in the future. Incoming requests are matched against the host before the IngressRuleValue. If the host is unspecified, the Ingress routes all traffic based on the specified IngressRuleValue.</p> <p>Host can be "precise" which is a domain name without the terminating dot of a network host (e.g. "foo.bar.com") or "wildcard", which is a domain name prefixed with a single wildcard label (e.g. ".foo.com"). <i>The wildcard character</i> ' must appear by itself as the first DNS label and matches only a single label. You cannot have a wildcard label by itself (e.g. Host == "*"). Requests will be matched against the Host field in the following way: 1. If Host is precise, the request matches this rule if the http host header is equal to Host. 2. If Host is a wildcard, then the request matches this rule if the http host header is to equal to the suffix (removing the first label) of the wildcard rule.</p>
http	<a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue</a> object	<p>HTTPIngressRuleValue is a list of http selectors pointing to backends. In the example: http:///? -&gt; backend where where parts of the url correspond to RFC 3986, this resource will be used to match against everything after the last '/' and before the first '?' or '#'.</p>

**Table 5-3089** io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue

Parameter	Type	Description
paths	Array of <a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressPath</a> objects	A collection of paths that map requests to backends.

**Table 5-3090** io.k8s.api.extensions.v1beta1.HTTPIngressPath

Parameter	Type	Description
backend	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	Backend defines the referenced service endpoint to which the traffic will be forwarded to.
path	String	Path is matched against the path of an incoming request. Currently it can contain characters disallowed from the conventional "path" part of a URL as defined by RFC 3986. Paths must begin with a '/'. When unspecified, all paths from incoming requests are matched.
pathType	String	<p>PathType determines the interpretation of the Path matching. PathType can be one of the following values: * Exact: Matches the URL path exactly. * Prefix: Matches based on a URL path prefix split by '/'. Matching is done on a path element by element basis. A path element refers is the list of labels in the path split by the '/' separator. A request is a match for path p if every p is an element-wise prefix of p of the request path. Note that if the last element of the path is a substring of the last element in request path, it is not a match (e.g. /foo/bar matches /foo/bar/baz, but does not match /foo/barbaz).</p> <ul style="list-style-type: none"> <li>ImplementationSpecific: Interpretation of the Path matching is up to the IngressClass. Implementations can treat this as a separate PathType or treat it identically to Prefix or Exact path types. Implementations are required to support all path types. Defaults to ImplementationSpecific.</li> </ul>
property	Map<String,String>	Extension property on the path.

**Table 5-3091** io.k8s.api.extensions.v1beta1.IngressBackend

Parameter	Type	Description
resource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	Resource is an ObjectRef to another Kubernetes resource in the namespace of the Ingress object. If resource is specified, serviceName and servicePort must not be specified.
serviceName	String	Specifies the name of the referenced service.

Parameter	Type	Description
servicePort	String	Specifies the port of the referenced service.

**Table 5-3092** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-3093** io.k8s.api.extensions.v1beta1.IngressTLS

Parameter	Type	Description
hosts	Array of strings	Hosts are a list of hosts included in the TLS certificate. The values in this list must match the name/s used in the tlsSecret. Defaults to the wildcard host setting for the loadbalancer controller fulfilling this Ingress, if left unspecified.
secretName	String	SecretName is the name of the secret used to terminate SSL traffic on 443. Field is left optional to allow SSL routing based on SNI hostname alone. If the SNI host in a listener conflicts with the "Host" header field used by an IngressRule, the SNI host is used for termination and value of the Host header is used for routing.

**Table 5-3094** io.k8s.api.extensions.v1beta1.IngressStatus

Parameter	Type	Description
loadBalancer	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer.

**Table 5-3095** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Type	Description
ingress	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-3096** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Type	Description
hostname	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)
ip	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

**Table 5-3097** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.

Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "extensions/v1beta1",
  "items": [ {
    "metadata": {
      "annotations": {
        "kubernetes.io/elb.id": "2d48d034-6046-48db-8bb2-53c67e8148b5",
        "kubernetes.io/elb.ip": "192.168.137.182",
        "kubernetes.io/elb.port": "6071"
      }
    }
  }
]
```

```

    },
    "creationTimestamp" : "2018-09-04T02:16:14Z",
    "generation" : 1,
    "labels" : {
      "app" : "redis",
      "isExternal" : "true",
      "zone" : "data"
    },
    "name" : "redis",
    "namespace" : "namespace-test",
    "resourceVersion" : "5161128",
    "selfLink" : "/apis/extensions/v1beta1/namespaces/namespace-test/ingresses/redis",
    "uid" : "7f86c310-afe8-11e8-b6ef-f898ef6c78b4"
  },
  "spec" : {
    "rules" : [ {
      "http" : {
        "paths" : [ {
          "backend" : {
            "serviceName" : "redis",
            "servicePort" : 8080
          },
          "path" : "/"
        } ]
      }
    } ]
  },
  "status" : {
    "loadBalancer" : {
      "ingress" : [ {
        "ip" : "192.168.137.182"
      } ]
    }
  }
},
"kind" : "IngressList",
"metadata" : {
  "resourceVersion" : "5161998",
  "selfLink" : "/apis/extensions/v1beta1/namespaces/namespace-test/ingresses"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType

Status Code	Description
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.6.3 Creating an Ingress

### Function

This API is used to create an HTTP ingress. The associated backend service is Redis:8080. A load balancer from ELB is used as the ingress controller. The IP address of the load balancer is 192.168.137.182, and the port number is 6071.

To display the ingress on the **Access Settings** tab of the CCI workload details page, you need to add labels to the created ingress. The added labels must meet the following requirements:

- The labels set for the Service must be the same as the **matchLabels** settings under **selector** of the workload.

For example, **matchLabels** is set as follows:

```
"spec": {
  "replicas": 1,
  "selector": {
    "matchLabels": {
      "app": "redis"
    }
  }
}
```

- **labels** must be set to **"app": "redis"** for the Service.

```
"metadata": {
  "name": "redis",
  "labels": {
    "app": "redis"
  }
}
```

**serviceName** defined in the ingress must be the same as the name of the Service.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /apis/extensions/v1beta1/namespaces/{namespace}/ingresses



**Table 5-3098** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3099** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3100** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-3101** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.extensions.v1beta1.IngressSpec</a> object	Spec is the desired state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

Parameter	Mandatory	Type	Description
status	No	<a href="#">io.k8s.api.extensions.v1beta1.IngressStatus</a> object	Status is the current state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3102** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Mandatory	Type	Description
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>



Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3103** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3104** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3105** io.k8s.api.extensions.v1beta1.IngressSpec

Parameter	Mandatory	Type	Description
backend	No	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	A default backend capable of servicing requests that don't match any rule. At least one of 'backend' or 'rules' must be specified. This field is optional to allow the loadbalancer controller or defaulting logic to specify a global default.

Parameter	Mandatory	Type	Description
ingressClassName	No	String	IngressClassName is the name of the IngressClass cluster resource. The associated IngressClass defines which controller will implement the resource. This replaces the deprecated <i>kubernetes.io/ingress.class</i> annotation. For backwards compatibility, when that annotation is set, it must be given precedence over this field. The controller may emit a warning if the field and annotation have different values. Implementations of this API should ignore Ingresses without a class specified. An IngressClass resource may be marked as default, which can be used to set a default value for this field. For more information, refer to the IngressClass documentation.
rules	No	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressRule</a> objects	A list of host rules used to configure the Ingress. If unspecified, or no rule matches, all traffic is sent to the default backend.
tls	No	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressTLS</a> objects	TLS configuration. Currently the Ingress only supports a single TLS port, 443. If multiple members of this list specify different hosts, they will be multiplexed on the same port according to the hostname specified through the SNI TLS extension, if the ingress controller fulfilling the ingress supports SNI.

**Table 5-3106** io.k8s.api.extensions.v1beta1.IngressRule

Parameter	Mandatory	Type	Description
host	No	String	<p>Host is the fully qualified domain name of a network host, as defined by RFC 3986. Note the following deviations from the "host" part of the URI as defined in RFC 3986: 1. IPs are not allowed. Currently an IngressRuleValue can only apply to the IP in the Spec of the parent Ingress. 2. The : delimiter is not respected because ports are not allowed. Currently the port of an Ingress is implicitly :80 for http and :443 for https. Both these may change in the future. Incoming requests are matched against the host before the IngressRuleValue. If the host is unspecified, the Ingress routes all traffic based on the specified IngressRuleValue.</p> <p>Host can be "precise" which is a domain name without the terminating dot of a network host (e.g. "foo.bar.com") or "wildcard", which is a domain name prefixed with a single wildcard label (e.g. ".foo.com"). <i>The wildcard character ' ' must appear by itself as the first DNS label and matches only a single label. You cannot have a wildcard label by itself (e.g. Host == "*"). Requests will be matched against the Host field in the following way: 1. If Host is precise, the request matches this rule if the http host header is equal to Host. 2. If Host is a wildcard, then the request matches this rule if the http host header is to equal to the suffix (removing the first label) of the wildcard rule.</i></p>

Parameter	Mandatory	Type	Description
http	No	<a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue</a> object	HTTPIngressRuleValue is a list of http selectors pointing to backends. In the example: http:///? -> backend where where parts of the url correspond to RFC 3986, this resource will be used to match against everything after the last '/' and before the first '?' or '#'.

**Table 5-3107** io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue

Parameter	Mandatory	Type	Description
paths	Yes	Array of <a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressPath</a> objects	A collection of paths that map requests to backends.

**Table 5-3108** io.k8s.api.extensions.v1beta1.HTTPIngressPath

Parameter	Mandatory	Type	Description
backend	Yes	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	Backend defines the referenced service endpoint to which the traffic will be forwarded to.
path	No	String	Path is matched against the path of an incoming request. Currently it can contain characters disallowed from the conventional "path" part of a URL as defined by RFC 3986. Paths must begin with a '/'. When unspecified, all paths from incoming requests are matched.

Parameter	Mandatory	Type	Description
pathType	No	String	<p>PathType determines the interpretation of the Path matching. PathType can be one of the following values: * Exact: Matches the URL path exactly. * Prefix: Matches based on a URL path prefix split by '/'. Matching is done on a path element by element basis. A path element refers is the list of labels in the path split by the '/' separator. A request is a match for path p if every p is an element-wise prefix of p of the request path. Note that if the last element of the path is a substring of the last element in request path, it is not a match (e.g. /foo/bar matches /foo/bar/baz, but does not match /foo/barbaz).</p> <ul style="list-style-type: none"> <li>ImplementationSpecific: Interpretation of the Path matching is up to the IngressClass. Implementations can treat this as a separate PathType or treat it identically to Prefix or Exact path types. Implementations are required to support all path types. Defaults to ImplementationSpecific.</li> </ul>
property	No	Map<String,String>	Extension property on the path.

**Table 5-3109** io.k8s.api.extensions.v1beta1.IngressBackend

Parameter	Mandatory	Type	Description
resource	No	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	Resource is an ObjectRef to another Kubernetes resource in the namespace of the Ingress object. If resource is specified, serviceName and servicePort must not be specified.

Parameter	Mandatory	Type	Description
serviceName	No	String	Specifies the name of the referenced service.
servicePort	No	String	Specifies the port of the referenced service.

**Table 5-3110** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Mandatory	Type	Description
apiGroup	No	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	Yes	String	Kind is the type of resource being referenced
name	Yes	String	Name is the name of resource being referenced

**Table 5-3111** io.k8s.api.extensions.v1beta1.IngressTLS

Parameter	Mandatory	Type	Description
hosts	No	Array of strings	Hosts are a list of hosts included in the TLS certificate. The values in this list must match the name/s used in the tlsSecret. Defaults to the wildcard host setting for the loadbalancer controller fulfilling this Ingress, if left unspecified.



Parameter	Mandatory	Type	Description
secretName	No	String	SecretName is the name of the secret used to terminate SSL traffic on 443. Field is left optional to allow SSL routing based on SNI hostname alone. If the SNI host in a listener conflicts with the "Host" header field used by an IngressRule, the SNI host is used for termination and value of the Host header is used for routing.

**Table 5-3112** io.k8s.api.extensions.v1beta1.IngressStatus

Parameter	Mandatory	Type	Description
loadBalancer	No	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer.

**Table 5-3113** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Mandatory	Type	Description
ingress	No	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-3114** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Mandatory	Type	Description
hostname	No	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)
ip	No	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

## Response Parameters

Status code: 200

**Table 5-3115** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.extensions.v1beta1.IngressSpec</a> object	Spec is the desired state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.extensions.v1beta1.IngressStatus</a> object	Status is the current state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3116** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3117** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3118** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>



**Table 5-3119** io.k8s.api.extensions.v1beta1.IngressSpec

Parameter	Type	Description
backend	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	A default backend capable of servicing requests that don't match any rule. At least one of 'backend' or 'rules' must be specified. This field is optional to allow the loadbalancer controller or defaulting logic to specify a global default.
ingressClassName	String	IngressClassName is the name of the IngressClass cluster resource. The associated IngressClass defines which controller will implement the resource. This replaces the deprecated <i>kubernetes.io/ingress.class</i> annotation. For backwards compatibility, when that annotation is set, it must be given precedence over this field. The controller may emit a warning if the field and annotation have different values. Implementations of this API should ignore Ingresses without a class specified. An IngressClass resource may be marked as default, which can be used to set a default value for this field. For more information, refer to the IngressClass documentation.
rules	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressRule</a> objects	A list of host rules used to configure the Ingress. If unspecified, or no rule matches, all traffic is sent to the default backend.
tls	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressTLS</a> objects	TLS configuration. Currently the Ingress only supports a single TLS port, 443. If multiple members of this list specify different hosts, they will be multiplexed on the same port according to the hostname specified through the SNI TLS extension, if the ingress controller fulfilling the ingress supports SNI.

**Table 5-3120** io.k8s.api.extensions.v1beta1.IngressRule

Parameter	Type	Description
host	String	<p>Host is the fully qualified domain name of a network host, as defined by RFC 3986. Note the following deviations from the "host" part of the URI as defined in RFC 3986: 1. IPs are not allowed. Currently an IngressRuleValue can only apply to the IP in the Spec of the parent Ingress. 2. The : delimiter is not respected because ports are not allowed. Currently the port of an Ingress is implicitly :80 for http and :443 for https. Both these may change in the future. Incoming requests are matched against the host before the IngressRuleValue. If the host is unspecified, the Ingress routes all traffic based on the specified IngressRuleValue.</p> <p>Host can be "precise" which is a domain name without the terminating dot of a network host (e.g. "foo.bar.com") or "wildcard", which is a domain name prefixed with a single wildcard label (e.g. ".foo.com"). <i>The wildcard character</i> ' must appear by itself as the first DNS label and matches only a single label. You cannot have a wildcard label by itself (e.g. Host == "*"). Requests will be matched against the Host field in the following way: 1. If Host is precise, the request matches this rule if the http host header is equal to Host. 2. If Host is a wildcard, then the request matches this rule if the http host header is to equal to the suffix (removing the first label) of the wildcard rule.</p>
http	<a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue</a> object	<p>HTTPIngressRuleValue is a list of http selectors pointing to backends. In the example: http:///? -&gt; backend where where parts of the url correspond to RFC 3986, this resource will be used to match against everything after the last '/' and before the first '?' or '#'.</p>

**Table 5-3121** io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue

Parameter	Type	Description
paths	Array of <a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressPath</a> objects	A collection of paths that map requests to backends.

**Table 5-3122** io.k8s.api.extensions.v1beta1.HTTPIngressPath

Parameter	Type	Description
backend	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	Backend defines the referenced service endpoint to which the traffic will be forwarded to.
path	String	Path is matched against the path of an incoming request. Currently it can contain characters disallowed from the conventional "path" part of a URL as defined by RFC 3986. Paths must begin with a '/'. When unspecified, all paths from incoming requests are matched.
pathType	String	<p>PathType determines the interpretation of the Path matching. PathType can be one of the following values: * Exact: Matches the URL path exactly. * Prefix: Matches based on a URL path prefix split by '/'. Matching is done on a path element by element basis. A path element refers is the list of labels in the path split by the '/' separator. A request is a match for path p if every p is an element-wise prefix of p of the request path. Note that if the last element of the path is a substring of the last element in request path, it is not a match (e.g. /foo/bar matches /foo/bar/baz, but does not match /foo/barbaz).</p> <ul style="list-style-type: none"> <li>ImplementationSpecific: Interpretation of the Path matching is up to the IngressClass. Implementations can treat this as a separate PathType or treat it identically to Prefix or Exact path types. Implementations are required to support all path types. Defaults to ImplementationSpecific.</li> </ul>
property	Map<String,String>	Extension property on the path.

**Table 5-3123** io.k8s.api.extensions.v1beta1.IngressBackend

Parameter	Type	Description
resource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	Resource is an ObjectRef to another Kubernetes resource in the namespace of the Ingress object. If resource is specified, serviceName and servicePort must not be specified.
serviceName	String	Specifies the name of the referenced service.

Parameter	Type	Description
servicePort	String	Specifies the port of the referenced service.

**Table 5-3124** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-3125** io.k8s.api.extensions.v1beta1.IngressTLS

Parameter	Type	Description
hosts	Array of strings	Hosts are a list of hosts included in the TLS certificate. The values in this list must match the name/s used in the tlsSecret. Defaults to the wildcard host setting for the loadbalancer controller fulfilling this Ingress, if left unspecified.
secretName	String	SecretName is the name of the secret used to terminate SSL traffic on 443. Field is left optional to allow SSL routing based on SNI hostname alone. If the SNI host in a listener conflicts with the "Host" header field used by an IngressRule, the SNI host is used for termination and value of the Host header is used for routing.

**Table 5-3126** io.k8s.api.extensions.v1beta1.IngressStatus

Parameter	Type	Description
loadBalancer	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer.

**Table 5-3127** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Type	Description
ingress	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-3128** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Type	Description
hostname	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)
ip	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

**Status code: 201**

**Table 5-3129** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
spec	<a href="#">io.k8s.api.extensions.v1beta1.IngressSpec</a> object	Spec is the desired state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.extensions.v1beta1.IngressStatus</a> object	Status is the current state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3130** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>



Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3131** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3132** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3133** io.k8s.api.extensions.v1beta1.IngressSpec

Parameter	Type	Description
backend	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	A default backend capable of servicing requests that don't match any rule. At least one of 'backend' or 'rules' must be specified. This field is optional to allow the loadbalancer controller or defaulting logic to specify a global default.
ingressClassName	String	IngressClassName is the name of the IngressClass cluster resource. The associated IngressClass defines which controller will implement the resource. This replaces the deprecated <i>kubernetes.io/ingress.class</i> annotation. For backwards compatibility, when that annotation is set, it must be given precedence over this field. The controller may emit a warning if the field and annotation have different values. Implementations of this API should ignore Ingresses without a class specified. An IngressClass resource may be marked as default, which can be used to set a default value for this field. For more information, refer to the IngressClass documentation.
rules	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressRule</a> objects	A list of host rules used to configure the Ingress. If unspecified, or no rule matches, all traffic is sent to the default backend.
tls	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressTLS</a> objects	TLS configuration. Currently the Ingress only supports a single TLS port, 443. If multiple members of this list specify different hosts, they will be multiplexed on the same port according to the hostname specified through the SNI TLS extension, if the ingress controller fulfilling the ingress supports SNI.

**Table 5-3134** io.k8s.api.extensions.v1beta1.IngressRule

Parameter	Type	Description
host	String	<p>Host is the fully qualified domain name of a network host, as defined by RFC 3986. Note the following deviations from the "host" part of the URI as defined in RFC 3986: 1. IPs are not allowed. Currently an IngressRuleValue can only apply to the IP in the Spec of the parent Ingress. 2. The : delimiter is not respected because ports are not allowed. Currently the port of an Ingress is implicitly :80 for http and :443 for https. Both these may change in the future. Incoming requests are matched against the host before the IngressRuleValue. If the host is unspecified, the Ingress routes all traffic based on the specified IngressRuleValue.</p> <p>Host can be "precise" which is a domain name without the terminating dot of a network host (e.g. "foo.bar.com") or "wildcard", which is a domain name prefixed with a single wildcard label (e.g. ".foo.com"). <i>The wildcard character ' must appear by itself as the first DNS label and matches only a single label. You cannot have a wildcard label by itself (e.g. Host == "*").</i></p> <p>Requests will be matched against the Host field in the following way: 1. If Host is precise, the request matches this rule if the http host header is equal to Host. 2. If Host is a wildcard, then the request matches this rule if the http host header is to equal to the suffix (removing the first label) of the wildcard rule.</p>
http	<a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue</a> object	<p>HTTPIngressRuleValue is a list of http selectors pointing to backends. In the example: http:///? -&gt; backend where where parts of the url correspond to RFC 3986, this resource will be used to match against everything after the last '/' and before the first '?' or '#'.</p>

**Table 5-3135** io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue

Parameter	Type	Description
paths	Array of <a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressPath</a> objects	A collection of paths that map requests to backends.

**Table 5-3136** io.k8s.api.extensions.v1beta1.HTTPIngressPath

Parameter	Type	Description
backend	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	Backend defines the referenced service endpoint to which the traffic will be forwarded to.
path	String	Path is matched against the path of an incoming request. Currently it can contain characters disallowed from the conventional "path" part of a URL as defined by RFC 3986. Paths must begin with a '/'. When unspecified, all paths from incoming requests are matched.
pathType	String	<p>PathType determines the interpretation of the Path matching. PathType can be one of the following values:</p> <ul style="list-style-type: none"> <li>* Exact: Matches the URL path exactly.</li> <li>* Prefix: Matches based on a URL path prefix split by '/'. Matching is done on a path element by element basis. A path element refers is the list of labels in the path split by the '/' separator. A request is a match for path p if every p is an element-wise prefix of p of the request path. Note that if the last element of the path is a substring of the last element in request path, it is not a match (e.g. /foo/bar matches /foo/bar/baz, but does not match /foo/barbaz).</li> </ul> <ul style="list-style-type: none"> <li>ImplementationSpecific: Interpretation of the Path matching is up to the IngressClass. Implementations can treat this as a separate PathType or treat it identically to Prefix or Exact path types. Implementations are required to support all path types. Defaults to ImplementationSpecific.</li> </ul>
property	Map<String,String>	Extension property on the path.

**Table 5-3137** io.k8s.api.extensions.v1beta1.IngressBackend

Parameter	Type	Description
resource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	Resource is an ObjectRef to another Kubernetes resource in the namespace of the Ingress object. If resource is specified, serviceName and servicePort must not be specified.
serviceName	String	Specifies the name of the referenced service.

Parameter	Type	Description
servicePort	String	Specifies the port of the referenced service.

**Table 5-3138** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-3139** io.k8s.api.extensions.v1beta1.IngressTLS

Parameter	Type	Description
hosts	Array of strings	Hosts are a list of hosts included in the TLS certificate. The values in this list must match the name/s used in the tlsSecret. Defaults to the wildcard host setting for the loadbalancer controller fulfilling this Ingress, if left unspecified.
secretName	String	SecretName is the name of the secret used to terminate SSL traffic on 443. Field is left optional to allow SSL routing based on SNI hostname alone. If the SNI host in a listener conflicts with the "Host" header field used by an IngressRule, the SNI host is used for termination and value of the Host header is used for routing.

**Table 5-3140** io.k8s.api.extensions.v1beta1.IngressStatus

Parameter	Type	Description
loadBalancer	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer.

**Table 5-3141** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Type	Description
ingress	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-3142** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Type	Description
hostname	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)
ip	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

**Status code: 202**

**Table 5-3143** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>



Parameter	Type	Description
spec	<a href="#">io.k8s.api.extensions.v1beta1.IngressSpec</a> object	Spec is the desired state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.extensions.v1beta1.IngressStatus</a> object	Status is the current state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3144** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3145** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3146** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3147** io.k8s.api.extensions.v1beta1.IngressSpec

Parameter	Type	Description
backend	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	A default backend capable of servicing requests that don't match any rule. At least one of 'backend' or 'rules' must be specified. This field is optional to allow the loadbalancer controller or defaulting logic to specify a global default.
ingressClassName	String	IngressClassName is the name of the IngressClass cluster resource. The associated IngressClass defines which controller will implement the resource. This replaces the deprecated <i>kubernetes.io/ingress.class</i> annotation. For backwards compatibility, when that annotation is set, it must be given precedence over this field. The controller may emit a warning if the field and annotation have different values. Implementations of this API should ignore Ingresses without a class specified. An IngressClass resource may be marked as default, which can be used to set a default value for this field. For more information, refer to the IngressClass documentation.
rules	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressRule</a> objects	A list of host rules used to configure the Ingress. If unspecified, or no rule matches, all traffic is sent to the default backend.
tls	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressTLS</a> objects	TLS configuration. Currently the Ingress only supports a single TLS port, 443. If multiple members of this list specify different hosts, they will be multiplexed on the same port according to the hostname specified through the SNI TLS extension, if the ingress controller fulfilling the ingress supports SNI.

**Table 5-3148** io.k8s.api.extensions.v1beta1.IngressRule

Parameter	Type	Description
host	String	<p>Host is the fully qualified domain name of a network host, as defined by RFC 3986. Note the following deviations from the "host" part of the URI as defined in RFC 3986: 1. IPs are not allowed. Currently an IngressRuleValue can only apply to the IP in the Spec of the parent Ingress. 2. The : delimiter is not respected because ports are not allowed. Currently the port of an Ingress is implicitly :80 for http and :443 for https. Both these may change in the future. Incoming requests are matched against the host before the IngressRuleValue. If the host is unspecified, the Ingress routes all traffic based on the specified IngressRuleValue.</p> <p>Host can be "precise" which is a domain name without the terminating dot of a network host (e.g. "foo.bar.com") or "wildcard", which is a domain name prefixed with a single wildcard label (e.g. ".foo.com"). <i>The wildcard character</i> ' must appear by itself as the first DNS label and matches only a single label. You cannot have a wildcard label by itself (e.g. Host == "*"). Requests will be matched against the Host field in the following way: 1. If Host is precise, the request matches this rule if the http host header is equal to Host. 2. If Host is a wildcard, then the request matches this rule if the http host header is to equal to the suffix (removing the first label) of the wildcard rule.</p>
http	<a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue</a> object	<p>HTTPIngressRuleValue is a list of http selectors pointing to backends. In the example: http:///? -&gt; backend where where parts of the url correspond to RFC 3986, this resource will be used to match against everything after the last '/' and before the first '?' or '#'.</p>

**Table 5-3149** io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue

Parameter	Type	Description
paths	Array of <a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressPath</a> objects	A collection of paths that map requests to backends.



**Table 5-3150** io.k8s.api.extensions.v1beta1.HTTPIngressPath

Parameter	Type	Description
backend	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	Backend defines the referenced service endpoint to which the traffic will be forwarded to.
path	String	Path is matched against the path of an incoming request. Currently it can contain characters disallowed from the conventional "path" part of a URL as defined by RFC 3986. Paths must begin with a '/'. When unspecified, all paths from incoming requests are matched.
pathType	String	<p>PathType determines the interpretation of the Path matching. PathType can be one of the following values: * Exact: Matches the URL path exactly. * Prefix: Matches based on a URL path prefix split by '/'. Matching is done on a path element by element basis. A path element refers is the list of labels in the path split by the '/' separator. A request is a match for path p if every p is an element-wise prefix of p of the request path. Note that if the last element of the path is a substring of the last element in request path, it is not a match (e.g. /foo/bar matches /foo/bar/baz, but does not match /foo/barbaz).</p> <ul style="list-style-type: none"> <li>ImplementationSpecific: Interpretation of the Path matching is up to the IngressClass. Implementations can treat this as a separate PathType or treat it identically to Prefix or Exact path types. Implementations are required to support all path types. Defaults to ImplementationSpecific.</li> </ul>
property	Map<String,String>	Extension property on the path.

**Table 5-3151** io.k8s.api.extensions.v1beta1.IngressBackend

Parameter	Type	Description
resource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	Resource is an ObjectRef to another Kubernetes resource in the namespace of the Ingress object. If resource is specified, serviceName and servicePort must not be specified.
serviceName	String	Specifies the name of the referenced service.

Parameter	Type	Description
servicePort	String	Specifies the port of the referenced service.

**Table 5-3152** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-3153** io.k8s.api.extensions.v1beta1.IngressTLS

Parameter	Type	Description
hosts	Array of strings	Hosts are a list of hosts included in the TLS certificate. The values in this list must match the name/s used in the tlsSecret. Defaults to the wildcard host setting for the loadbalancer controller fulfilling this Ingress, if left unspecified.
secretName	String	SecretName is the name of the secret used to terminate SSL traffic on 443. Field is left optional to allow SSL routing based on SNI hostname alone. If the SNI host in a listener conflicts with the "Host" header field used by an IngressRule, the SNI host is used for termination and value of the Host header is used for routing.

**Table 5-3154** io.k8s.api.extensions.v1beta1.IngressStatus

Parameter	Type	Description
loadBalancer	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer.

**Table 5-3155** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Type	Description
ingress	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-3156** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Type	Description
hostname	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)
ip	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

## Example Requests

```
{
  "apiVersion": "extensions/v1beta1",
  "kind": "Ingress",
  "metadata": {
    "annotations": {
      "kubernetes.io/elb.id": "2d48d034-6046-48db-8bb2-53c67e8148b5",
      "kubernetes.io/elb.ip": "192.168.137.182",
      "kubernetes.io/elb.port": "6071"
    },
    "labels": {
      "app": "redis"
    },
    "name": "redis"
  },
  "spec": {
    "rules": [ {
      "http": {
        "paths": [ {
          "backend": {
            "serviceName": "redis",
            "servicePort": 8080
          },
          "path": "/"
        } ]
      }
    } ]
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "extensions/v1beta1",
  "kind": "Ingress",
  "metadata": {
    "annotations": {
      "kubernetes.io/elb.id": "2d48d034-6046-48db-8bb2-53c67e8148b5",
      "kubernetes.io/elb.port": "6071"
    },
    "creationTimestamp": "2018-09-04T02:16:14Z",
    "generation": 1,
    "labels": {
      "app": "redis",
      "isExternal": "true",
      "zone": "data"
    },
    "name": "redis",
    "namespace": "namespace-test",
    "resourceVersion": "5161127",
    "selfLink": "/apis/extensions/v1beta1/namespaces/namespace-test/ingresses/redis",
    "uid": "7f86c310-afe8-11e8-b6ef-f898ef6c78b4"
  },
  "spec": {
    "rules": [ {
      "http": {
        "paths": [ {
          "backend": {
            "serviceName": "redis",
            "servicePort": 8080
          },
          "path": "/"
        } ]
      }
    } ]
  },
  "status": {
    "loadBalancer": { }
  }
}
```

## Status Codes

Status Code	Description
200	OK
201	Created
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	AlreadyExists
415	UnsupportedMediaType

Status Code	Description
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.6.4 Deleting an Ingress

### Function

This API is used to delete a specified ingress.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /apis/extensions/v1beta1/namespaces/{namespace}/ingresses/{name}

**Table 5-3157** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Ingress
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3158** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

Parameter	Mandatory	Type	Description
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3159** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-3160** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

Parameter	Mandatory	Type	Description
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.



Parameter	Mandatory	Type	Description
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-3161** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

Status code: 200

**Table 5-3162** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.

Parameter	Type	Description
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3163** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.

Parameter	Type	Description
kind	String	The kind attribute of the resource associated with the status <code>StatusReason</code> . On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status <code>StatusReason</code> (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3164** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-3165** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

**Status code: 202**

**Table 5-3166** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3167** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3168** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional.  Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"

Parameter	Type	Description
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-3169** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "code": 200,
  "details": {
    "group": "extensions",
    "kind": "Ingresses",
    "name": "redis",
    "uid": "fa35aa94-afe2-11e8-b6ef-f898ef6c78b4"
  },
  "kind": "Status",
  "metadata": { },
  "status": "Success"
}
```

## Status Codes

Status Code	Description
200	OK
202	Accepted
400	BadRequest
401	Unauthorized



Status Code	Description
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.6.5 Querying an Ingress

### Function

This API is used to query the details about a specified ingress.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/extensions/v1beta1/namespaces/{namespace}/ingresses/{name}

**Table 5-3170** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Ingress
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3171** Query Parameters

Parameter	Mandatory	Type	Description
exact	No	Boolean	Should the export be exact. Exact export maintains cluster-specific fields like 'Namespace'. Deprecated. Planned for removal in 1.18.
export	No	Boolean	Should this value be exported. Export strips fields that a user can not specify. Deprecated. Planned for removal in 1.18.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3172** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

**Status code: 200**

**Table 5-3173** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.extensions.v1beta1.IngressSpec</a> object	Spec is the desired state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.extensions.v1beta1.IngressStatus</a> object	Status is the current state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3174** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3175** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3176** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>



**Table 5-3177** io.k8s.api.extensions.v1beta1.IngressSpec

Parameter	Type	Description
backend	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	A default backend capable of servicing requests that don't match any rule. At least one of 'backend' or 'rules' must be specified. This field is optional to allow the loadbalancer controller or defaulting logic to specify a global default.
ingressClassName	String	IngressClassName is the name of the IngressClass cluster resource. The associated IngressClass defines which controller will implement the resource. This replaces the deprecated <i>kubernetes.io/ingress.class</i> annotation. For backwards compatibility, when that annotation is set, it must be given precedence over this field. The controller may emit a warning if the field and annotation have different values. Implementations of this API should ignore Ingresses without a class specified. An IngressClass resource may be marked as default, which can be used to set a default value for this field. For more information, refer to the IngressClass documentation.
rules	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressRule</a> objects	A list of host rules used to configure the Ingress. If unspecified, or no rule matches, all traffic is sent to the default backend.
tls	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressTLS</a> objects	TLS configuration. Currently the Ingress only supports a single TLS port, 443. If multiple members of this list specify different hosts, they will be multiplexed on the same port according to the hostname specified through the SNI TLS extension, if the ingress controller fulfilling the ingress supports SNI.

**Table 5-3178** io.k8s.api.extensions.v1beta1.IngressRule

Parameter	Type	Description
host	String	<p>Host is the fully qualified domain name of a network host, as defined by RFC 3986. Note the following deviations from the "host" part of the URI as defined in RFC 3986: 1. IPs are not allowed. Currently an IngressRuleValue can only apply to the IP in the Spec of the parent Ingress. 2. The : delimiter is not respected because ports are not allowed. Currently the port of an Ingress is implicitly :80 for http and :443 for https. Both these may change in the future. Incoming requests are matched against the host before the IngressRuleValue. If the host is unspecified, the Ingress routes all traffic based on the specified IngressRuleValue.</p> <p>Host can be "precise" which is a domain name without the terminating dot of a network host (e.g. "foo.bar.com") or "wildcard", which is a domain name prefixed with a single wildcard label (e.g. ".foo.com"). <i>The wildcard character</i> ' must appear by itself as the first DNS label and matches only a single label. You cannot have a wildcard label by itself (e.g. Host == "*"). Requests will be matched against the Host field in the following way: 1. If Host is precise, the request matches this rule if the http host header is equal to Host. 2. If Host is a wildcard, then the request matches this rule if the http host header is to equal to the suffix (removing the first label) of the wildcard rule.</p>
http	<a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue</a> object	<p>HTTPIngressRuleValue is a list of http selectors pointing to backends. In the example: http:///? -&gt; backend where where parts of the url correspond to RFC 3986, this resource will be used to match against everything after the last '/' and before the first '?' or '#'.</p>

**Table 5-3179** io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue

Parameter	Type	Description
paths	Array of <a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressPath</a> objects	A collection of paths that map requests to backends.

**Table 5-3180** io.k8s.api.extensions.v1beta1.HTTPIngressPath

Parameter	Type	Description
backend	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	Backend defines the referenced service endpoint to which the traffic will be forwarded to.
path	String	Path is matched against the path of an incoming request. Currently it can contain characters disallowed from the conventional "path" part of a URL as defined by RFC 3986. Paths must begin with a '/'. When unspecified, all paths from incoming requests are matched.
pathType	String	<p>PathType determines the interpretation of the Path matching. PathType can be one of the following values:</p> <ul style="list-style-type: none"> <li>* Exact: Matches the URL path exactly.</li> <li>* Prefix: Matches based on a URL path prefix split by '/'. Matching is done on a path element by element basis. A path element refers is the list of labels in the path split by the '/' separator. A request is a match for path p if every p is an element-wise prefix of p of the request path. Note that if the last element of the path is a substring of the last element in request path, it is not a match (e.g. /foo/bar matches /foo/bar/baz, but does not match /foo/barbaz).</li> </ul> <ul style="list-style-type: none"> <li>• ImplementationSpecific: Interpretation of the Path matching is up to the IngressClass. Implementations can treat this as a separate PathType or treat it identically to Prefix or Exact path types. Implementations are required to support all path types. Defaults to ImplementationSpecific.</li> </ul>
property	Map<String,String>	Extension property on the path.

**Table 5-3181** io.k8s.api.extensions.v1beta1.IngressBackend

Parameter	Type	Description
resource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	Resource is an ObjectRef to another Kubernetes resource in the namespace of the Ingress object. If resource is specified, serviceName and servicePort must not be specified.
serviceName	String	Specifies the name of the referenced service.

Parameter	Type	Description
servicePort	String	Specifies the port of the referenced service.

**Table 5-3182** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-3183** io.k8s.api.extensions.v1beta1.IngressTLS

Parameter	Type	Description
hosts	Array of strings	Hosts are a list of hosts included in the TLS certificate. The values in this list must match the name/s used in the tlsSecret. Defaults to the wildcard host setting for the loadbalancer controller fulfilling this Ingress, if left unspecified.
secretName	String	SecretName is the name of the secret used to terminate SSL traffic on 443. Field is left optional to allow SSL routing based on SNI hostname alone. If the SNI host in a listener conflicts with the "Host" header field used by an IngressRule, the SNI host is used for termination and value of the Host header is used for routing.

**Table 5-3184** io.k8s.api.extensions.v1beta1.IngressStatus

Parameter	Type	Description
loadBalancer	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer.

**Table 5-3185** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Type	Description
ingress	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-3186** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Type	Description
hostname	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)
ip	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "extensions/v1beta1",
  "kind": "Ingress",
  "metadata": {
    "annotations": {
      "kubernetes.io/elb.id": "2d48d034-6046-48db-8bb2-53c67e8148b5",
      "kubernetes.io/elb.ip": "192.168.137.182",
      "kubernetes.io/elb.port": "6071"
    },
    "creationTimestamp": "2018-09-04T02:16:14Z",
    "generation": 1,
    "labels": {
      "app": "redis",
      "isExternal": "true",
      "zone": "data"
    },
    "name": "redis",
    "namespace": "namespace-test",
    "resourceVersion": "5161128",
    "selfLink": "/apis/extensions/v1beta1/namespaces/namespace-test/ingresses/redis",
    "uid": "7f86c310-afe8-11e8-b6ef-f898ef6c78b4"
  },
  "spec": {
    "rules": [ {
      "http": {
```

```
    "paths" : [ {  
      "backend" : {  
        "serviceName" : "redis",  
        "servicePort" : 8080  
      },  
      "path" : "/"  
    } ]  
  }  
} ]  
},  
"status" : {  
  "loadBalancer" : {  
    "ingress" : [ {  
      "ip" : "192.168.137.182"  
    } ]  
  }  
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.6.6 Updating an Ingress

### Function

This API is used to update a specified ingress.

The following fields can be updated:

- **metadata.labels**
- **metadata.generateName**
- **metadata.annotations**
- **spec.rules**

## Calling Method

For details, see [Calling APIs](#).

## URI

PATCH /apis/extensions/v1beta1/namespaces/{namespace}/ingresses/{name}

**Table 5-3187** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Ingress
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3188** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> . This field is required for apply requests (application/apply-patch) but optional for non-apply patch types (JsonPatch, MergePatch, StrategicMergePatch).

Parameter	Mandatory	Type	Description
force	No	Boolean	Force is going to "force" Apply requests. It means user will re-acquire conflicting fields owned by other people. Force flag must be unset for non-apply patch requests.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3189** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.



Parameter	Mandatory	Type	Description
Content-Type	Yes	String	<p>Currently, three types of patch request methods are supported. For details, see "Update API Objects in Place Using kubectl patch" (<a href="https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/">https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/</a>).</p> <ul style="list-style-type: none"> <li>• <b>Json Patch, Content-Type: application/json-patch+json</b> As defined in RFC6902, Json Patch contains a series of operations on a JSON object. After receiving the object, the server applies the represented operations to the JSON object.</li> <li>• <b>Merge Patch, Content-Type: application/merge-patch+json</b> According to RFC 7386, Merge Patch contains some description of a JSON object. The JSON object is submitted to the server end and merges with the current object of the server end, which means to replace the list field of the current resource object to form a new object.</li> <li>• <b>Strategic Merge Patch, Content-Type: application/strategic-merge-patch+json</b> Strategic Merge Patch is used to add legal metadata to API objects and uses new metadata to determine which lists should be merged and which ones should not. The current metadata is used as the structure labels.</li> </ul>

**Table 5-3190** Request body parameters

Parameter	Mandatory	Type	Description
-	Yes	Object	Patch is provided to give a concrete name and type to the Kubernetes PATCH request body.

## Response Parameters

Status code: 200

**Table 5-3191** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.extensions.v1beta1.IngressSpec</a> object	Spec is the desired state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.extensions.v1beta1.IngressStatus</a> object	Status is the current state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3192** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3193** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3194** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>



**Table 5-3195** io.k8s.api.extensions.v1beta1.IngressSpec

Parameter	Type	Description
backend	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	A default backend capable of servicing requests that don't match any rule. At least one of 'backend' or 'rules' must be specified. This field is optional to allow the loadbalancer controller or defaulting logic to specify a global default.
ingressClassName	String	IngressClassName is the name of the IngressClass cluster resource. The associated IngressClass defines which controller will implement the resource. This replaces the deprecated <i>kubernetes.io/ingress.class</i> annotation. For backwards compatibility, when that annotation is set, it must be given precedence over this field. The controller may emit a warning if the field and annotation have different values. Implementations of this API should ignore Ingresses without a class specified. An IngressClass resource may be marked as default, which can be used to set a default value for this field. For more information, refer to the IngressClass documentation.
rules	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressRule</a> objects	A list of host rules used to configure the Ingress. If unspecified, or no rule matches, all traffic is sent to the default backend.
tls	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressTLS</a> objects	TLS configuration. Currently the Ingress only supports a single TLS port, 443. If multiple members of this list specify different hosts, they will be multiplexed on the same port according to the hostname specified through the SNI TLS extension, if the ingress controller fulfilling the ingress supports SNI.

**Table 5-3196** io.k8s.api.extensions.v1beta1.IngressRule

Parameter	Type	Description
host	String	<p>Host is the fully qualified domain name of a network host, as defined by RFC 3986. Note the following deviations from the "host" part of the URI as defined in RFC 3986: 1. IPs are not allowed. Currently an IngressRuleValue can only apply to the IP in the Spec of the parent Ingress. 2. The : delimiter is not respected because ports are not allowed. Currently the port of an Ingress is implicitly :80 for http and :443 for https. Both these may change in the future. Incoming requests are matched against the host before the IngressRuleValue. If the host is unspecified, the Ingress routes all traffic based on the specified IngressRuleValue.</p> <p>Host can be "precise" which is a domain name without the terminating dot of a network host (e.g. "foo.bar.com") or "wildcard", which is a domain name prefixed with a single wildcard label (e.g. ".foo.com"). <i>The wildcard character</i> ' must appear by itself as the first DNS label and matches only a single label. You cannot have a wildcard label by itself (e.g. Host == "*"). Requests will be matched against the Host field in the following way: 1. If Host is precise, the request matches this rule if the http host header is equal to Host. 2. If Host is a wildcard, then the request matches this rule if the http host header is to equal to the suffix (removing the first label) of the wildcard rule.</p>
http	<a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue</a> object	<p>HTTPIngressRuleValue is a list of http selectors pointing to backends. In the example: http:///? -&gt; backend where where parts of the url correspond to RFC 3986, this resource will be used to match against everything after the last '/' and before the first '?' or '#'.</p>

**Table 5-3197** io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue

Parameter	Type	Description
paths	Array of <a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressPath</a> objects	A collection of paths that map requests to backends.

**Table 5-3198** io.k8s.api.extensions.v1beta1.HTTPIngressPath

Parameter	Type	Description
backend	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	Backend defines the referenced service endpoint to which the traffic will be forwarded to.
path	String	Path is matched against the path of an incoming request. Currently it can contain characters disallowed from the conventional "path" part of a URL as defined by RFC 3986. Paths must begin with a '/'. When unspecified, all paths from incoming requests are matched.
pathType	String	<p>PathType determines the interpretation of the Path matching. PathType can be one of the following values: * Exact: Matches the URL path exactly. * Prefix: Matches based on a URL path prefix split by '/'. Matching is done on a path element by element basis. A path element refers is the list of labels in the path split by the '/' separator. A request is a match for path p if every p is an element-wise prefix of p of the request path. Note that if the last element of the path is a substring of the last element in request path, it is not a match (e.g. /foo/bar matches /foo/bar/baz, but does not match /foo/barbaz).</p> <ul style="list-style-type: none"> <li>ImplementationSpecific: Interpretation of the Path matching is up to the IngressClass. Implementations can treat this as a separate PathType or treat it identically to Prefix or Exact path types. Implementations are required to support all path types. Defaults to ImplementationSpecific.</li> </ul>
property	Map<String,String>	Extension property on the path.

**Table 5-3199** io.k8s.api.extensions.v1beta1.IngressBackend

Parameter	Type	Description
resource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	Resource is an ObjectRef to another Kubernetes resource in the namespace of the Ingress object. If resource is specified, serviceName and servicePort must not be specified.
serviceName	String	Specifies the name of the referenced service.

Parameter	Type	Description
servicePort	String	Specifies the port of the referenced service.

**Table 5-3200** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-3201** io.k8s.api.extensions.v1beta1.IngressTLS

Parameter	Type	Description
hosts	Array of strings	Hosts are a list of hosts included in the TLS certificate. The values in this list must match the name/s used in the tlsSecret. Defaults to the wildcard host setting for the loadbalancer controller fulfilling this Ingress, if left unspecified.
secretName	String	SecretName is the name of the secret used to terminate SSL traffic on 443. Field is left optional to allow SSL routing based on SNI hostname alone. If the SNI host in a listener conflicts with the "Host" header field used by an IngressRule, the SNI host is used for termination and value of the Host header is used for routing.

**Table 5-3202** io.k8s.api.extensions.v1beta1.IngressStatus

Parameter	Type	Description
loadBalancer	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer.

**Table 5-3203** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Type	Description
ingress	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-3204** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Type	Description
hostname	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)
ip	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

## Example Requests

Changing the **servicePort** value of the ingress to **8082**

```
{
  "spec": {
    "rules": [ {
      "http": {
        "paths": [ {
          "backend": {
            "serviceName": "redis",
            "servicePort": 8082
          },
          "path": "/"
        } ]
      }
    } ]
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "extensions/v1beta1",
  "kind": "Ingress",
  "metadata": {
    "annotations": {
      "kubernetes.io/elb.id": "2d48d034-6046-48db-8bb2-53c67e8148b5",
      "kubernetes.io/elb.ip": "192.168.137.182",
      "kubernetes.io/elb.port": "6071"
    },
    "creationTimestamp": "2018-09-04T02:16:14Z",
  }
}
```

```

"generation" : 3,
"labels" : {
  "app" : "redis",
  "isExternal" : "true",
  "zone" : "data"
},
"name" : "redis",
"namespace" : "namespace-test",
"resourceVersion" : "5165479",
"selfLink" : "/apis/extensions/v1beta1/namespaces/namespace-test/ingresses/redis",
"uid" : "7f86c310-afe8-11e8-b6ef-f898ef6c78b4"
},
"spec" : {
  "rules" : [ {
    "http" : {
      "paths" : [ {
        "backend" : {
          "serviceName" : "redis",
          "servicePort" : 8082
        },
        "path" : "/"
      } ]
    }
  } ]
},
"status" : {
  "loadBalancer" : {
    "ingress" : [ {
      "ip" : "192.168.137.182"
    } ]
  }
}
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable

Status Code	Description
504	ServerTimeout

## 5.6.7 Replacing an Ingress

### Function

This API is used to replace a specified ingress.

The following fields can be updated:

- **metadata.labels**
- **metadata.generateName**
- **metadata.annotations**
- **spec.rules**

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /apis/extensions/v1beta1/namespaces/{namespace}/ingresses/{name}

**Table 5-3205** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Ingress
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3206** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

Parameter	Mandatory	Type	Description
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3207** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-3208** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>



Parameter	Mandatory	Type	Description
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.extensions.v1beta1.IngressSpec</a> object	Spec is the desired state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	No	<a href="#">io.k8s.api.extensions.v1beta1.IngressStatus</a> object	Status is the current state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3209** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Mandatory	Type	Description
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3210** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'



**Table 5-3211** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3212** io.k8s.api.extensions.v1beta1.IngressSpec

Parameter	Mandatory	Type	Description
backend	No	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	A default backend capable of servicing requests that don't match any rule. At least one of 'backend' or 'rules' must be specified. This field is optional to allow the loadbalancer controller or defaulting logic to specify a global default.

Parameter	Mandatory	Type	Description
ingressClassName	No	String	IngressClassName is the name of the IngressClass cluster resource. The associated IngressClass defines which controller will implement the resource. This replaces the deprecated <i>kubernetes.io/ingress.class</i> annotation. For backwards compatibility, when that annotation is set, it must be given precedence over this field. The controller may emit a warning if the field and annotation have different values. Implementations of this API should ignore Ingresses without a class specified. An IngressClass resource may be marked as default, which can be used to set a default value for this field. For more information, refer to the IngressClass documentation.
rules	No	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressRule</a> objects	A list of host rules used to configure the Ingress. If unspecified, or no rule matches, all traffic is sent to the default backend.
tls	No	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressTLS</a> objects	TLS configuration. Currently the Ingress only supports a single TLS port, 443. If multiple members of this list specify different hosts, they will be multiplexed on the same port according to the hostname specified through the SNI TLS extension, if the ingress controller fulfilling the ingress supports SNI.

**Table 5-3213** io.k8s.api.extensions.v1beta1.IngressRule

Parameter	Mandatory	Type	Description
host	No	String	<p>Host is the fully qualified domain name of a network host, as defined by RFC 3986. Note the following deviations from the "host" part of the URI as defined in RFC 3986: 1. IPs are not allowed. Currently an IngressRuleValue can only apply to the IP in the Spec of the parent Ingress. 2. The : delimiter is not respected because ports are not allowed. Currently the port of an Ingress is implicitly :80 for http and :443 for https. Both these may change in the future. Incoming requests are matched against the host before the IngressRuleValue. If the host is unspecified, the Ingress routes all traffic based on the specified IngressRuleValue.</p> <p>Host can be "precise" which is a domain name without the terminating dot of a network host (e.g. "foo.bar.com") or "wildcard", which is a domain name prefixed with a single wildcard label (e.g. ".foo.com"). <i>The wildcard character ' ' must appear by itself as the first DNS label and matches only a single label. You cannot have a wildcard label by itself (e.g. Host == "*"). Requests will be matched against the Host field in the following way: 1. If Host is precise, the request matches this rule if the http host header is equal to Host. 2. If Host is a wildcard, then the request matches this rule if the http host header is to equal to the suffix (removing the first label) of the wildcard rule.</i></p>

Parameter	Mandatory	Type	Description
http	No	<a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue</a> object	HTTPIngressRuleValue is a list of http selectors pointing to backends. In the example: http:///? -> backend where where parts of the url correspond to RFC 3986, this resource will be used to match against everything after the last '/' and before the first '?' or '#'.

**Table 5-3214** io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue

Parameter	Mandatory	Type	Description
paths	Yes	Array of <a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressPath</a> objects	A collection of paths that map requests to backends.

**Table 5-3215** io.k8s.api.extensions.v1beta1.HTTPIngressPath

Parameter	Mandatory	Type	Description
backend	Yes	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	Backend defines the referenced service endpoint to which the traffic will be forwarded to.
path	No	String	Path is matched against the path of an incoming request. Currently it can contain characters disallowed from the conventional "path" part of a URL as defined by RFC 3986. Paths must begin with a '/'. When unspecified, all paths from incoming requests are matched.

Parameter	Mandatory	Type	Description
pathType	No	String	<p>PathType determines the interpretation of the Path matching. PathType can be one of the following values: * Exact: Matches the URL path exactly. * Prefix: Matches based on a URL path prefix split by '/'. Matching is done on a path element by element basis. A path element refers is the list of labels in the path split by the '/' separator. A request is a match for path p if every p is an element-wise prefix of p of the request path. Note that if the last element of the path is a substring of the last element in request path, it is not a match (e.g. /foo/bar matches /foo/bar/baz, but does not match /foo/barbaz).</p> <ul style="list-style-type: none"> <li>ImplementationSpecific: Interpretation of the Path matching is up to the IngressClass. Implementations can treat this as a separate PathType or treat it identically to Prefix or Exact path types. Implementations are required to support all path types. Defaults to ImplementationSpecific.</li> </ul>
property	No	Map<String,String>	Extension property on the path.

**Table 5-3216** io.k8s.api.extensions.v1beta1.IngressBackend

Parameter	Mandatory	Type	Description
resource	No	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	Resource is an ObjectRef to another Kubernetes resource in the namespace of the Ingress object. If resource is specified, serviceName and servicePort must not be specified.

Parameter	Mandatory	Type	Description
serviceName	No	String	Specifies the name of the referenced service.
servicePort	No	String	Specifies the port of the referenced service.

**Table 5-3217** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Mandatory	Type	Description
apiGroup	No	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	Yes	String	Kind is the type of resource being referenced
name	Yes	String	Name is the name of resource being referenced

**Table 5-3218** io.k8s.api.extensions.v1beta1.IngressTLS

Parameter	Mandatory	Type	Description
hosts	No	Array of strings	Hosts are a list of hosts included in the TLS certificate. The values in this list must match the name/s used in the tlsSecret. Defaults to the wildcard host setting for the loadbalancer controller fulfilling this Ingress, if left unspecified.

Parameter	Mandatory	Type	Description
secretName	No	String	SecretName is the name of the secret used to terminate SSL traffic on 443. Field is left optional to allow SSL routing based on SNI hostname alone. If the SNI host in a listener conflicts with the "Host" header field used by an IngressRule, the SNI host is used for termination and value of the Host header is used for routing.

**Table 5-3219** io.k8s.api.extensions.v1beta1.IngressStatus

Parameter	Mandatory	Type	Description
loadBalancer	No	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer.

**Table 5-3220** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Mandatory	Type	Description
ingress	No	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-3221** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Mandatory	Type	Description
hostname	No	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)
ip	No	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

## Response Parameters

Status code: 200

**Table 5-3222** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.extensions.v1beta1.IngressSpec</a> object	Spec is the desired state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.extensions.v1beta1.IngressStatus</a> object	Status is the current state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3223** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>



Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3224** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3225** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3226** io.k8s.api.extensions.v1beta1.IngressSpec

Parameter	Type	Description
backend	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	A default backend capable of servicing requests that don't match any rule. At least one of 'backend' or 'rules' must be specified. This field is optional to allow the loadbalancer controller or defaulting logic to specify a global default.
ingressClassName	String	IngressClassName is the name of the IngressClass cluster resource. The associated IngressClass defines which controller will implement the resource. This replaces the deprecated <i>kubernetes.io/ingress.class</i> annotation. For backwards compatibility, when that annotation is set, it must be given precedence over this field. The controller may emit a warning if the field and annotation have different values. Implementations of this API should ignore Ingresses without a class specified. An IngressClass resource may be marked as default, which can be used to set a default value for this field. For more information, refer to the IngressClass documentation.
rules	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressRule</a> objects	A list of host rules used to configure the Ingress. If unspecified, or no rule matches, all traffic is sent to the default backend.
tls	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressTLS</a> objects	TLS configuration. Currently the Ingress only supports a single TLS port, 443. If multiple members of this list specify different hosts, they will be multiplexed on the same port according to the hostname specified through the SNI TLS extension, if the ingress controller fulfilling the ingress supports SNI.

**Table 5-3227** io.k8s.api.extensions.v1beta1.IngressRule

Parameter	Type	Description
host	String	<p>Host is the fully qualified domain name of a network host, as defined by RFC 3986. Note the following deviations from the "host" part of the URI as defined in RFC 3986: 1. IPs are not allowed. Currently an IngressRuleValue can only apply to the IP in the Spec of the parent Ingress. 2. The : delimiter is not respected because ports are not allowed. Currently the port of an Ingress is implicitly :80 for http and :443 for https. Both these may change in the future. Incoming requests are matched against the host before the IngressRuleValue. If the host is unspecified, the Ingress routes all traffic based on the specified IngressRuleValue.</p> <p>Host can be "precise" which is a domain name without the terminating dot of a network host (e.g. "foo.bar.com") or "wildcard", which is a domain name prefixed with a single wildcard label (e.g. ".foo.com"). <i>The wildcard character</i> ' must appear by itself as the first DNS label and matches only a single label. You cannot have a wildcard label by itself (e.g. Host == "*"). Requests will be matched against the Host field in the following way: 1. If Host is precise, the request matches this rule if the http host header is equal to Host. 2. If Host is a wildcard, then the request matches this rule if the http host header is to equal to the suffix (removing the first label) of the wildcard rule.</p>
http	<a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue</a> object	<p>HTTPIngressRuleValue is a list of http selectors pointing to backends. In the example: http:///? -&gt; backend where where parts of the url correspond to RFC 3986, this resource will be used to match against everything after the last '/' and before the first '?' or '#'.</p>

**Table 5-3228** io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue

Parameter	Type	Description
paths	Array of <a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressPath</a> objects	A collection of paths that map requests to backends.



**Table 5-3229** io.k8s.api.extensions.v1beta1.HTTPIngressPath

Parameter	Type	Description
backend	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	Backend defines the referenced service endpoint to which the traffic will be forwarded to.
path	String	Path is matched against the path of an incoming request. Currently it can contain characters disallowed from the conventional "path" part of a URL as defined by RFC 3986. Paths must begin with a '/'. When unspecified, all paths from incoming requests are matched.
pathType	String	<p>PathType determines the interpretation of the Path matching. PathType can be one of the following values: * Exact: Matches the URL path exactly. * Prefix: Matches based on a URL path prefix split by '/'. Matching is done on a path element by element basis. A path element refers is the list of labels in the path split by the '/' separator. A request is a match for path p if every p is an element-wise prefix of p of the request path. Note that if the last element of the path is a substring of the last element in request path, it is not a match (e.g. /foo/bar matches /foo/bar/baz, but does not match /foo/barbaz).</p> <ul style="list-style-type: none"> <li>ImplementationSpecific: Interpretation of the Path matching is up to the IngressClass. Implementations can treat this as a separate PathType or treat it identically to Prefix or Exact path types. Implementations are required to support all path types. Defaults to ImplementationSpecific.</li> </ul>
property	Map<String,String>	Extension property on the path.

**Table 5-3230** io.k8s.api.extensions.v1beta1.IngressBackend

Parameter	Type	Description
resource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	Resource is an ObjectRef to another Kubernetes resource in the namespace of the Ingress object. If resource is specified, serviceName and servicePort must not be specified.
serviceName	String	Specifies the name of the referenced service.

Parameter	Type	Description
servicePort	String	Specifies the port of the referenced service.

**Table 5-3231** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-3232** io.k8s.api.extensions.v1beta1.IngressTLS

Parameter	Type	Description
hosts	Array of strings	Hosts are a list of hosts included in the TLS certificate. The values in this list must match the name/s used in the tlsSecret. Defaults to the wildcard host setting for the loadbalancer controller fulfilling this Ingress, if left unspecified.
secretName	String	SecretName is the name of the secret used to terminate SSL traffic on 443. Field is left optional to allow SSL routing based on SNI hostname alone. If the SNI host in a listener conflicts with the "Host" header field used by an IngressRule, the SNI host is used for termination and value of the Host header is used for routing.

**Table 5-3233** io.k8s.api.extensions.v1beta1.IngressStatus

Parameter	Type	Description
loadBalancer	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer.

**Table 5-3234** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Type	Description
ingress	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-3235** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Type	Description
hostname	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)
ip	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

**Status code: 201**

**Table 5-3236** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
spec	<a href="#">io.k8s.api.extensions.v1beta1.IngressSpec</a> object	Spec is the desired state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.extensions.v1beta1.IngressStatus</a> object	Status is the current state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3237** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3238** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>



Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3239** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3240** io.k8s.api.extensions.v1beta1.IngressSpec

Parameter	Type	Description
backend	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	A default backend capable of servicing requests that don't match any rule. At least one of 'backend' or 'rules' must be specified. This field is optional to allow the loadbalancer controller or defaulting logic to specify a global default.
ingressClassName	String	IngressClassName is the name of the IngressClass cluster resource. The associated IngressClass defines which controller will implement the resource. This replaces the deprecated <i>kubernetes.io/ingress.class</i> annotation. For backwards compatibility, when that annotation is set, it must be given precedence over this field. The controller may emit a warning if the field and annotation have different values. Implementations of this API should ignore Ingresses without a class specified. An IngressClass resource may be marked as default, which can be used to set a default value for this field. For more information, refer to the IngressClass documentation.
rules	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressRule</a> objects	A list of host rules used to configure the Ingress. If unspecified, or no rule matches, all traffic is sent to the default backend.
tls	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressTLS</a> objects	TLS configuration. Currently the Ingress only supports a single TLS port, 443. If multiple members of this list specify different hosts, they will be multiplexed on the same port according to the hostname specified through the SNI TLS extension, if the ingress controller fulfilling the ingress supports SNI.

**Table 5-3241** io.k8s.api.extensions.v1beta1.IngressRule

Parameter	Type	Description
host	String	<p>Host is the fully qualified domain name of a network host, as defined by RFC 3986. Note the following deviations from the "host" part of the URI as defined in RFC 3986: 1. IPs are not allowed. Currently an IngressRuleValue can only apply to the IP in the Spec of the parent Ingress. 2. The : delimiter is not respected because ports are not allowed. Currently the port of an Ingress is implicitly :80 for http and :443 for https. Both these may change in the future. Incoming requests are matched against the host before the IngressRuleValue. If the host is unspecified, the Ingress routes all traffic based on the specified IngressRuleValue.</p> <p>Host can be "precise" which is a domain name without the terminating dot of a network host (e.g. "foo.bar.com") or "wildcard", which is a domain name prefixed with a single wildcard label (e.g. ".foo.com"). <i>The wildcard character</i> ' must appear by itself as the first DNS label and matches only a single label. You cannot have a wildcard label by itself (e.g. Host == "*"). Requests will be matched against the Host field in the following way: 1. If Host is precise, the request matches this rule if the http host header is equal to Host. 2. If Host is a wildcard, then the request matches this rule if the http host header is to equal to the suffix (removing the first label) of the wildcard rule.</p>
http	<a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue</a> object	<p>HTTPIngressRuleValue is a list of http selectors pointing to backends. In the example: http:///? -&gt; backend where where parts of the url correspond to RFC 3986, this resource will be used to match against everything after the last '/' and before the first '?' or '#'.</p>

**Table 5-3242** io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue

Parameter	Type	Description
paths	Array of <a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressPath</a> objects	A collection of paths that map requests to backends.

**Table 5-3243** io.k8s.api.extensions.v1beta1.HTTPIngressPath

Parameter	Type	Description
backend	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	Backend defines the referenced service endpoint to which the traffic will be forwarded to.
path	String	Path is matched against the path of an incoming request. Currently it can contain characters disallowed from the conventional "path" part of a URL as defined by RFC 3986. Paths must begin with a '/'. When unspecified, all paths from incoming requests are matched.
pathType	String	<p>PathType determines the interpretation of the Path matching. PathType can be one of the following values: * Exact: Matches the URL path exactly. * Prefix: Matches based on a URL path prefix split by '/'. Matching is done on a path element by element basis. A path element refers is the list of labels in the path split by the '/' separator. A request is a match for path p if every p is an element-wise prefix of p of the request path. Note that if the last element of the path is a substring of the last element in request path, it is not a match (e.g. /foo/bar matches /foo/bar/baz, but does not match /foo/barbaz).</p> <ul style="list-style-type: none"> <li>ImplementationSpecific: Interpretation of the Path matching is up to the IngressClass. Implementations can treat this as a separate PathType or treat it identically to Prefix or Exact path types. Implementations are required to support all path types. Defaults to ImplementationSpecific.</li> </ul>
property	Map<String,String>	Extension property on the path.

**Table 5-3244** io.k8s.api.extensions.v1beta1.IngressBackend

Parameter	Type	Description
resource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	Resource is an ObjectRef to another Kubernetes resource in the namespace of the Ingress object. If resource is specified, serviceName and servicePort must not be specified.
serviceName	String	Specifies the name of the referenced service.

Parameter	Type	Description
servicePort	String	Specifies the port of the referenced service.

**Table 5-3245** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-3246** io.k8s.api.extensions.v1beta1.IngressTLS

Parameter	Type	Description
hosts	Array of strings	Hosts are a list of hosts included in the TLS certificate. The values in this list must match the name/s used in the tlsSecret. Defaults to the wildcard host setting for the loadbalancer controller fulfilling this Ingress, if left unspecified.
secretName	String	SecretName is the name of the secret used to terminate SSL traffic on 443. Field is left optional to allow SSL routing based on SNI hostname alone. If the SNI host in a listener conflicts with the "Host" header field used by an IngressRule, the SNI host is used for termination and value of the Host header is used for routing.

**Table 5-3247** io.k8s.api.extensions.v1beta1.IngressStatus

Parameter	Type	Description
loadBalancer	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer.

**Table 5-3248** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Type	Description
ingress	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-3249** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Type	Description
hostname	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)
ip	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

## Example Requests

Changing the **servicePort** value of an existing ingress from **8080** to **8081**

```
{
  "apiVersion": "extensions/v1beta1",
  "kind": "Ingress",
  "metadata": {
    "annotations": {
      "kubernetes.io/elb.id": "2d48d034-6046-48db-8bb2-53c67e8148b5",
      "kubernetes.io/elb.ip": "192.168.137.182",
      "kubernetes.io/elb.port": "6071"
    },
    "labels": {
      "app": "redis",
      "isExternal": "true",
      "zone": "data"
    },
    "name": "redis"
  },
  "spec": {
    "rules": [ {
      "http": {
        "paths": [ {
          "backend": {
            "serviceName": "redis",
            "servicePort": 8081
          },
          "path": "/"
        } ]
      }
    } ]
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "extensions/v1beta1",
  "kind": "Ingress",
  "metadata": {
    "annotations": {
      "kubernetes.io/elb.id": "2d48d034-6046-48db-8bb2-53c67e8148b5",
      "kubernetes.io/elb.ip": "192.168.137.182",
      "kubernetes.io/elb.port": "6071"
    },
    "creationTimestamp": "2018-09-04T02:16:14Z",
    "generation": 2,
    "labels": {
      "app": "redis",
      "isExternal": "true",
      "zone": "data"
    },
    "name": "redis",
    "namespace": "namespace-test",
    "resourceVersion": "5162744",
    "selfLink": "/apis/extensions/v1beta1/namespaces/namespace-test/ingresses/redis",
    "uid": "7f86c310-afe8-11e8-b6ef-f898ef6c78b4"
  },
  "spec": {
    "rules": [ {
      "http": {
        "paths": [ {
          "backend": {
            "serviceName": "redis",
            "servicePort": 8081
          },
          "path": "/"
        } ]
      }
    } ]
  },
  "status": {
    "loadBalancer": {
      "ingress": [ {
        "ip": "192.168.137.182"
      } ]
    }
  }
}
```

## Status Codes

Status Code	Description
200	OK
201	Created
400	BadRequest
401	Unauthorized
403	Forbidden

Status Code	Description
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.6.8 Querying the Status of an Ingress

### Function

This API is used to query the status of a specified ingress.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/extensions/v1beta1/namespaces/{namespace}/ingresses/{name}/status

**Table 5-3250** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Ingress
namespace	Yes	String	object name and auth scope, such as for teams and projects



**Table 5-3251** Query Parameters

Parameter	Mandatory	Type	Description
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3252** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-3253** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
spec	<a href="#">io.k8s.api.extensions.v1beta1.IngressSpec</a> object	Spec is the desired state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.extensions.v1beta1.IngressStatus</a> object	Status is the current state of the Ingress. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3254** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3255** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3256** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3257** io.k8s.api.extensions.v1beta1.IngressSpec

Parameter	Type	Description
backend	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	A default backend capable of servicing requests that don't match any rule. At least one of 'backend' or 'rules' must be specified. This field is optional to allow the loadbalancer controller or defaulting logic to specify a global default.
ingressClassName	String	IngressClassName is the name of the IngressClass cluster resource. The associated IngressClass defines which controller will implement the resource. This replaces the deprecated <i>kubernetes.io/ingress.class</i> annotation. For backwards compatibility, when that annotation is set, it must be given precedence over this field. The controller may emit a warning if the field and annotation have different values. Implementations of this API should ignore Ingresses without a class specified. An IngressClass resource may be marked as default, which can be used to set a default value for this field. For more information, refer to the IngressClass documentation.
rules	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressRule</a> objects	A list of host rules used to configure the Ingress. If unspecified, or no rule matches, all traffic is sent to the default backend.
tls	Array of <a href="#">io.k8s.api.extensions.v1beta1.IngressTLS</a> objects	TLS configuration. Currently the Ingress only supports a single TLS port, 443. If multiple members of this list specify different hosts, they will be multiplexed on the same port according to the hostname specified through the SNI TLS extension, if the ingress controller fulfilling the ingress supports SNI.



**Table 5-3258** io.k8s.api.extensions.v1beta1.IngressRule

Parameter	Type	Description
host	String	<p>Host is the fully qualified domain name of a network host, as defined by RFC 3986. Note the following deviations from the "host" part of the URI as defined in RFC 3986: 1. IPs are not allowed. Currently an IngressRuleValue can only apply to the IP in the Spec of the parent Ingress. 2. The : delimiter is not respected because ports are not allowed. Currently the port of an Ingress is implicitly :80 for http and :443 for https. Both these may change in the future. Incoming requests are matched against the host before the IngressRuleValue. If the host is unspecified, the Ingress routes all traffic based on the specified IngressRuleValue.</p> <p>Host can be "precise" which is a domain name without the terminating dot of a network host (e.g. "foo.bar.com") or "wildcard", which is a domain name prefixed with a single wildcard label (e.g. ".foo.com"). <i>The wildcard character</i> ' must appear by itself as the first DNS label and matches only a single label. You cannot have a wildcard label by itself (e.g. Host == "*"). Requests will be matched against the Host field in the following way: 1. If Host is precise, the request matches this rule if the http host header is equal to Host. 2. If Host is a wildcard, then the request matches this rule if the http host header is to equal to the suffix (removing the first label) of the wildcard rule.</p>
http	<a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue</a> object	<p>HTTPIngressRuleValue is a list of http selectors pointing to backends. In the example: http:///? -&gt; backend where where parts of the url correspond to RFC 3986, this resource will be used to match against everything after the last '/' and before the first '?' or '#'.</p>

**Table 5-3259** io.k8s.api.extensions.v1beta1.HTTPIngressRuleValue

Parameter	Type	Description
paths	Array of <a href="#">io.k8s.api.extensions.v1beta1.HTTPIngressPath</a> objects	<p>A collection of paths that map requests to backends.</p>

**Table 5-3260** io.k8s.api.extensions.v1beta1.HTTPIngressPath

Parameter	Type	Description
backend	<a href="#">io.k8s.api.extensions.v1beta1.IngressBackend</a> object	Backend defines the referenced service endpoint to which the traffic will be forwarded to.
path	String	Path is matched against the path of an incoming request. Currently it can contain characters disallowed from the conventional "path" part of a URL as defined by RFC 3986. Paths must begin with a '/'. When unspecified, all paths from incoming requests are matched.
pathType	String	<p>PathType determines the interpretation of the Path matching. PathType can be one of the following values: * Exact: Matches the URL path exactly. * Prefix: Matches based on a URL path prefix split by '/'. Matching is done on a path element by element basis. A path element refers is the list of labels in the path split by the '/' separator. A request is a match for path p if every p is an element-wise prefix of p of the request path. Note that if the last element of the path is a substring of the last element in request path, it is not a match (e.g. /foo/bar matches /foo/bar/baz, but does not match /foo/barbaz).</p> <ul style="list-style-type: none"> <li>ImplementationSpecific: Interpretation of the Path matching is up to the IngressClass. Implementations can treat this as a separate PathType or treat it identically to Prefix or Exact path types. Implementations are required to support all path types. Defaults to ImplementationSpecific.</li> </ul>
property	Map<String,String>	Extension property on the path.

**Table 5-3261** io.k8s.api.extensions.v1beta1.IngressBackend

Parameter	Type	Description
resource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	Resource is an ObjectRef to another Kubernetes resource in the namespace of the Ingress object. If resource is specified, serviceName and servicePort must not be specified.
serviceName	String	Specifies the name of the referenced service.

Parameter	Type	Description
servicePort	String	Specifies the port of the referenced service.

**Table 5-3262** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-3263** io.k8s.api.extensions.v1beta1.IngressTLS

Parameter	Type	Description
hosts	Array of strings	Hosts are a list of hosts included in the TLS certificate. The values in this list must match the name/s used in the tlsSecret. Defaults to the wildcard host setting for the loadbalancer controller fulfilling this Ingress, if left unspecified.
secretName	String	SecretName is the name of the secret used to terminate SSL traffic on 443. Field is left optional to allow SSL routing based on SNI hostname alone. If the SNI host in a listener conflicts with the "Host" header field used by an IngressRule, the SNI host is used for termination and value of the Host header is used for routing.

**Table 5-3264** io.k8s.api.extensions.v1beta1.IngressStatus

Parameter	Type	Description
loadBalancer	<a href="#">io.k8s.api.core.v1.LoadBalancerStatus</a> object	LoadBalancer contains the current status of the load-balancer.

**Table 5-3265** io.k8s.api.core.v1.LoadBalancerStatus

Parameter	Type	Description
ingress	Array of <a href="#">io.k8s.api.core.v1.LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 5-3266** io.k8s.api.core.v1.LoadBalancerIngress

Parameter	Type	Description
hostname	String	Hostname is set for load-balancer ingress points that are DNS based (typically AWS load-balancers)
ip	String	IP is set for load-balancer ingress points that are IP based (typically GCE or OpenStack load-balancers)

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "extensions/v1beta1",
  "kind": "Ingress",
  "metadata": {
    "annotations": {
      "kubernetes.io/elb.id": "2d48d034-6046-48db-8bb2-53c67e8148b5",
      "kubernetes.io/elb.ip": "192.168.137.182",
      "kubernetes.io/elb.port": "6071"
    },
    "creationTimestamp": "2018-09-04T02:16:14Z",
    "generation": 1,
    "labels": {
      "app": "redis",
      "isExternal": "true",
      "zone": "data"
    },
    "name": "redis",
    "namespace": "namespace-test",
    "resourceVersion": "5161128",
    "selfLink": "/apis/extensions/v1beta1/namespaces/namespace-test/ingresses/redis",
    "uid": "7f86c310-afe8-11e8-b6ef-f898ef6c78b4"
  },
  "spec": {
    "rules": [ {
      "http": {
```

```

"paths" : [ {
  "backend" : {
    "serviceName" : "redis",
    "servicePort" : 8080
  },
  "path" : "/"
} ]
}
} ]
},
"status" : {
  "loadBalancer" : {
    "ingress" : [ {
      "ip" : "192.168.137.182"
    } ]
  }
}
}
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.7 OpenAPIv2

## 5.7.1 Querying the OpenAPI Swagger

### Function

This API is used to query the OpenAPI Swagger.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /openapi/v2

### Request Parameters

Table 5-3267 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

### Response Parameters

None

### Example Requests

None

### Example Responses

None

### Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized

Status Code	Description
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.8 VolcanoJob

### 5.8.1 Deleting Volcano Jobs in a Specified Namespace

#### Function

This API is used to delete all Volcano jobs in a specified namespace.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

DELETE /apis/batch.volcano.sh/v1alpha1/namespaces/{namespace}/jobs

**Table 5-3268** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3269** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.



Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3270** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

## Response Parameters

**Status code: 200**

**Table 5-3271** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3272** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>

Parameter	Type	Description
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3273** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-3274** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.

Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "batch.volcano.sh/v1alpha1",
  "items": [ {
    "apiVersion": "batch.volcano.sh/v1alpha1",
    "kind": "Job",
    "metadata": {
      "creationTimestamp": "2019-06-26T03:16:26Z",
      "generation": 1,
```

```
"labels" : {
  "app" : "patchlabel"
},
"name" : "openmpi-hello-2-com",
"namespace" : "cci-namespace-42263891",
"resourceVersion" : "7695210",
"selfLink" : "/apis/batch.volcano.sh/v1alpha1/namespaces/cci-namespace-42263891/jobs/openmpi-
hello-2-com",
"uid" : "c84d86f0-97c0-11e9-9d09-dc9914fb58e0"
},
"spec" : {
  "minAvailable" : 1,
  "plugins" : {
    "env" : [ ],
    "ssh" : [ ],
    "svc" : [ ]
  },
  "queue" : "default",
  "schedulerName" : "volcano",
  "tasks" : [ {
    "name" : "mpimaster",
    "policies" : [ {
      "action" : "CompleteJob",
      "event" : "TaskCompleted"
    } ],
    "replicas" : 1,
    "template" : {
      "spec" : {
        "containers" : [ {
          "command" : [ "/bin/sh", "-c", "MPI_HOST=`cat /etc/volcano/mpiworker.host | tr '\\n\\n'
\\,\\\";\\nmkdir -p /var/run/sshhd; /usr/sbin/sshhd;\\nmpiexec --allow-run-as-root --host ${MPI_HOST} -np 2
mpi_hello_world 003e /home/re" ],
          "image" : "**:*:20202/l00427178/openmpi-hello:3.28",
          "name" : "mpimaster",
          "ports" : [ {
            "containerPort" : 22,
            "name" : "mpijob-port"
          } ],
          "resources" : {
            "limits" : {
              "cpu" : "250m",
              "memory" : "1Gi"
            },
            "requests" : {
              "cpu" : "250m",
              "memory" : "1Gi"
            }
          },
          "workingDir" : "/home"
        } ],
        "imagePullSecrets" : [ {
          "name" : "imagepull-secret"
        } ],
        "restartPolicy" : "OnFailure"
      }
    }
  } ],
  "name" : "mpiworker",
  "replicas" : 2,
  "template" : {
    "spec" : {
      "containers" : [ {
        "command" : [ "/bin/sh", "-c", "mkdir -p /var/run/sshhd; /usr/sbin/sshhd -D;" ],
        "image" : "**:*:20202/l00427178/openmpi-hello:3.28",
        "name" : "mpiworker",
        "ports" : [ {
          "containerPort" : 22,
          "name" : "mpijob-port"
        } ],
      } ],
    }
  }
}, {
```



```

"resources" : {
  "limits" : {
    "cpu" : "250m",
    "memory" : "1Gi"
  },
  "requests" : {
    "cpu" : "250m",
    "memory" : "1Gi"
  }
},
"workingDir" : "/home"
}],
"imagePullSecrets" : [ {
  "name" : "imagepull-secret"
}],
"restartPolicy" : "OnFailure"
}
}
}],
"status" : {
  "minAvailable" : 1,
  "pending" : 3,
  "state" : {
    "phase" : "Inqueue"
  }
}
}],
"kind" : "JobList",
"metadata" : {
  "continue" : "",
  "resourceVersion" : "7732232",
  "selfLink" : "/apis/batch.volcano.sh/v1alpha1/namespaces/cci-namespace-42263891/jobs"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError

Status Code	Description
503	ServiceUnavailable
504	ServerTimeout

## 5.8.2 Querying Volcano Jobs in a Namespace

### Function

This API is used to query all Volcano jobs in a specified namespace.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/batch.volcano.sh/v1alpha1/namespaces/{namespace}/jobs

**Table 5-3275** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3276** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

Table 5-3277 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

Table 5-3278 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">sh.volcano.batch.v1alpha1.Job</a> objects	List of jobs. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

**Table 5-3279** sh.volcano.batch.v1alpha1.Job

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata</a>
spec	<a href="#">spec</a> object	Specification of the desired behavior of a cron job, including the minAvailable
status	<a href="#">status</a> object	Current status of Job

**Table 5-3280** spec

Parameter	Type	Description
maxRetry	Integer	The limit for retrying submitting job, default is 3
minAvailable	Integer	The minimal available pods to run for this Job
plugins	Object	Enabled task plugins when creating job.
policies	Array of <a href="#">spec.policies</a> objects	Specifies the default lifecycle of tasks
queue	String	The name of the queue on which job should be created
schedulerName	String	SchedulerName is the default value of <i>tasks.template.spec.schedulerName</i> .
tasks	Array of <a href="#">spec.tasks</a> objects	Tasks specifies the task specification of Job



Parameter	Type	Description
volumes	Array of <a href="#">spec.volumes</a> objects	The volumes for Job

**Table 5-3281** spec.policies

Parameter	Type	Description
action	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	String	The Event recorded by scheduler; the controller takes actions according to this Event.
timeout	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3282** spec.tasks

Parameter	Type	Description
name	String	Name specifies the name of tasks
policies	Array of <a href="#">spec.tasks.policies</a> objects	Specifies the lifecycle of task
replicas	Integer	Replicas specifies the replicas of this TaskSpec in Job
template	Object	Specifies the pod that will be created for this TaskSpec when executing a Job

**Table 5-3283** spec.tasks.policies

Parameter	Type	Description
action	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	String	The Event recorded by scheduler; the controller takes actions according to this Event.

Parameter	Type	Description
timeout	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3284** spec.volumes

Parameter	Type	Description
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
volumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> object	VolumeClaim defines the PVC used by the VolumeMount.
volumeClaim Name	String	The name of the volume claim.

**Table 5-3285** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

Parameter	Type	Description
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-3286** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3287** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3288** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3289** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>



Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-3290** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-3291** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-3292** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-3293** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-3294** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-3295** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Table 5-3296** status

Parameter	Type	Description
ControlledResources	Map<String,String>	All of the resources that are controlled by this job.
Succeeded	Integer	The number of pods which reached phase Succeeded.
failed	Integer	The number of pods which reached phase Failed.
minAvailable	Integer	The minimal available pods to run for this Job
pending	Integer	The number of pending pods.
retryCount	Integer	The number that volcano retried to submit the job.
running	Integer	The number of running pods.
state	<a href="#">status.state</a> object	Current state of Job.
version	Integer	Job's current version

**Table 5-3297** status.state

Parameter	Type	Description
message	String	Human-readable message indicating details about last transition.
phase	String	The phase of Job
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.

**Table 5-3298** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "batch.volcano.sh/v1alpha1",
  "items": [ {
    "apiVersion": "batch.volcano.sh/v1alpha1",
    "kind": "Job",
    "metadata": {
      "creationTimestamp": "2019-06-26T03:16:26Z",
      "generation": 1,
      "name": "openmpi-hello-2-com",
      "namespace": "cci-namespace-42263891",
      "resourceVersion": "7625538",
      "selfLink": "/apis/batch.volcano.sh/v1alpha1/namespaces/cci-namespace-42263891/jobs/openmpi-hello-2-com",
      "uid": "c84d86f0-97c0-11e9-9d09-dc9914fb58e0"
    },
    "spec": {
      "minAvailable": 1,
      "plugins": {
        "env": [ ],
        "ssh": [ ],
        "svc": [ ]
      },
      "queue": "default",
      "schedulerName": "volcano",
      "tasks": [ {
        "name": "mpimaster",
        "policies": [ {
          "action": "CompleteJob",
          "event": "TaskCompleted"
        } ],
        "replicas": 1,
        "template": {
          "spec": {
            "containers": [ {
              "command": [ "/bin/sh", "-c", "MPI_HOST=`cat /etc/volcano/mpiworker.host | tr '\\n\\n' '\\.\\.';\\nmkdir -p /var/run/ssh; /usr/sbin/ssh;\\nmpixec --allow-run-as-root --host ${MPI_HOST} -np 2 mpi_hello_world 003e /home/re" ],
              "image": "*/.5.235:20202/swr/openmpi-hello:3.28",
              "name": "mpimaster",
              "ports": [ {
                "containerPort": 22,
                "name": "mpijob-port"
              } ],
              "resources": {
                "limits": {
                  "cpu": "250m",
                  "memory": "1Gi"
                },
                "requests": {
                  "cpu": "250m",
                  "memory": "1Gi"
                }
              },
              "workingDir": "/home"
            } ],
            "imagePullSecrets": [ {
              "name": "imagepull-secret"
            } ],
          }
        }
      } ],
    }
  ]
}
```

```
    "restartPolicy" : "OnFailure"
  }
}
}, {
  "name" : "mpiworker",
  "replicas" : 2,
  "template" : {
    "spec" : {
      "containers" : [ {
        "command" : [ "/bin/sh", "-c", "mkdir -p /var/run/ssh; /usr/sbin/ssh -D;" ],
        "image" : "*/*/20202/swr/openmpi-hello:3.28",
        "name" : "mpiworker",
        "ports" : [ {
          "containerPort" : 22,
          "name" : "mpijob-port"
        } ],
      } ],
      "resources" : {
        "limits" : {
          "cpu" : "250m",
          "memory" : "1Gi"
        },
        "requests" : {
          "cpu" : "250m",
          "memory" : "1Gi"
        }
      },
      "workingDir" : "/home"
    },
    "imagePullSecrets" : [ {
      "name" : "imagepull-secret"
    } ],
    "restartPolicy" : "OnFailure"
  }
}
}
}],
"status" : {
  "minAvailable" : 1,
  "pending" : 3,
  "state" : {
    "phase" : "Inqueue"
  }
}
}],
"kind" : "JobList",
"metadata" : {
  "continue" : "",
  "resourceVersion" : "7678090",
  "selfLink" : "/apis/batch.volcano.sh/v1alpha1/namespaces/cci-namespace-42263891/jobs"
}
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound

Status Code	Description
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.8.3 Creating a Volcano Job

### Function

This API is used to create a Volcano job.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /apis/batch.volcano.sh/v1alpha1/namespaces/{namespace}/jobs

**Table 5-3299** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects



**Table 5-3300** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3301** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-3302** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata</a>
spec	No	<a href="#">spec</a> object	Specification of the desired behavior of a cron job, including the minAvailable
status	No	<a href="#">status</a> object	Current status of Job

**Table 5-3303** spec

Parameter	Mandatory	Type	Description
maxRetry	No	Integer	The limit for retrying submitting job, default is 3
minAvailable	No	Integer	The minimal available pods to run for this Job
plugins	No	Object	Enabled task plugins when creating job.

Parameter	Mandatory	Type	Description
policies	No	Array of <a href="#">spec.policies</a> objects	Specifies the default lifecycle of tasks
queue	No	String	The name of the queue on which job should be created
schedulerName	No	String	SchedulerName is the default value of <i>tasks.template.spec.schedulerName</i> .
tasks	No	Array of <a href="#">spec.tasks</a> objects	Tasks specifies the task specification of Job
volumes	No	Array of <a href="#">spec.volumes</a> objects	The volumes for Job

**Table 5-3304** spec.policies

Parameter	Mandatory	Type	Description
action	No	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	No	String	The Event recorded by scheduler; the controller takes actions according to this Event.
timeout	No	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3305** spec.tasks

Parameter	Mandatory	Type	Description
name	No	String	Name specifies the name of tasks
policies	No	Array of <a href="#">spec.tasks.policies</a> objects	Specifies the lifecycle of task

Parameter	Mandatory	Type	Description
replicas	No	Integer	Replicas specifies the replicas of this TaskSpec in Job
template	No	Object	Specifies the pod that will be created for this TaskSpec when executing a Job

**Table 5-3306** spec.tasks.policies

Parameter	Mandatory	Type	Description
action	No	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	No	String	The Event recorded by scheduler; the controller takes actions according to this Event.
timeout	No	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3307** spec.volumes

Parameter	Mandatory	Type	Description
mountPath	Yes	String	Path within the container at which the volume should be mounted. Must not contain '!'.
volumeClaim	No	<a href="https://kubernetes.io/api-references/objects/persistentvolumeclaim/">io.k8s.api.core.v1.PersistentVolumeClaim</a> object	VolumeClaim defines the PVC used by the VolumeMount.
volumeClaim Name	No	String	The name of the volume claim.

**Table 5-3308** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-3309** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>



Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3310** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3311** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3312** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Mandatory	Type	Description
dataSource	No	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	No	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>

Parameter	Mandatory	Type	Description
volumeMode	No	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	No	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-3313** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Mandatory	Type	Description
apiGroup	No	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	Yes	String	Kind is the type of resource being referenced
name	Yes	String	Name is the name of resource being referenced

**Table 5-3314** io.k8s.api.core.v1.ResourceRequirements

Parameter	Mandatory	Type	Description
limits	No	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Mandatory	Type	Description
requests	No	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-3315** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	No	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-3316** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	key is the label key that the selector applies to.
operator	Yes	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.



Parameter	Mandatory	Type	Description
values	No	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-3317** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	No	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	No	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	No	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-3318** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Mandatory	Type	Description
lastProbeTime	No	String	Last time we probed the condition.
lastTransitionTime	No	String	Last time the condition transitioned from one status to another.

Parameter	Mandatory	Type	Description
message	No	String	Human-readable message indicating details about last transition.
reason	No	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	Yes	String	status is the status of the condition.
type	Yes	String	type is the type of the condition.

**Table 5-3319** status

Parameter	Mandatory	Type	Description
ControlledResources	No	Map<String,String>	All of the resources that are controlled by this job.
Succeeded	No	Integer	The number of pods which reached phase Succeeded.
failed	No	Integer	The number of pods which reached phase Failed.
minAvailable	No	Integer	The minimal available pods to run for this Job
pending	No	Integer	The number of pending pods.
retryCount	No	Integer	The number that volcano retried to submit the job.
running	No	Integer	The number of running pods.
state	No	<a href="#">status.state</a> object	Current state of Job.
version	No	Integer	Job's current version

**Table 5-3320** status.state

Parameter	Mandatory	Type	Description
message	No	String	Human-readable message indicating details about last transition.
phase	No	String	The phase of Job
reason	No	String	Unique, one-word, CamelCase reason for the condition's last transition.

## Response Parameters

Status code: 200

**Table 5-3321** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata</a>
spec	<a href="#">spec</a> object	Specification of the desired behavior of a cron job, including the minAvailable
status	<a href="#">status</a> object	Current status of Job

**Table 5-3322 spec**

Parameter	Type	Description
maxRetry	Integer	The limit for retrying submitting job, default is 3
minAvailable	Integer	The minimal available pods to run for this Job
plugins	Object	Enabled task plugins when creating job.
policies	Array of <a href="#">spec.policies</a> objects	Specifies the default lifecycle of tasks
queue	String	The name of the queue on which job should be created
schedulerName	String	SchedulerName is the default value of <i>tasks.template.spec.schedulerName</i> .
tasks	Array of <a href="#">spec.tasks</a> objects	Tasks specifies the task specification of Job
volumes	Array of <a href="#">spec.volumes</a> objects	The volumes for Job

**Table 5-3323 spec.policies**

Parameter	Type	Description
action	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	String	The Event recorded by scheduler; the controller takes actions according to this Event.
timeout	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3324 spec.tasks**

Parameter	Type	Description
name	String	Name specifies the name of tasks
policies	Array of <a href="#">spec.tasks.policies</a> objects	Specifies the lifecycle of task

Parameter	Type	Description
replicas	Integer	Replicas specifies the replicas of this TaskSpec in Job
template	Object	Specifies the pod that will be created for this TaskSpec when executing a Job

**Table 5-3325** spec.tasks.policies

Parameter	Type	Description
action	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	String	The Event recorded by scheduler; the controller takes actions according to this Event.
timeout	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3326** spec.volumes

Parameter	Type	Description
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
volumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> object	VolumeClaim defines the PVC used by the VolumeMount.
volumeClaim Name	String	The name of the volume claim.

**Table 5-3327** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-3328** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>



Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3329** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3330** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3331** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-3332** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-3333** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-3334** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-3335** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-3336** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-3337** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Table 5-3338** status

Parameter	Type	Description
ControlledResources	Map<String,String>	All of the resources that are controlled by this job.
Succeeded	Integer	The number of pods which reached phase Succeeded.
failed	Integer	The number of pods which reached phase Failed.
minAvailable	Integer	The minimal available pods to run for this Job
pending	Integer	The number of pending pods.
retryCount	Integer	The number that volcano retried to submit the job.
running	Integer	The number of running pods.
state	<a href="#">status.state</a> object	Current state of Job.
version	Integer	Job's current version

**Table 5-3339** status.state

Parameter	Type	Description
message	String	Human-readable message indicating details about last transition.
phase	String	The phase of Job
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.

**Status code: 201**

**Table 5-3340** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata</a>
spec	<a href="#">spec</a> object	Specification of the desired behavior of a cron job, including the minAvailable
status	<a href="#">status</a> object	Current status of Job

**Table 5-3341** spec

Parameter	Type	Description
maxRetry	Integer	The limit for retrying submitting job, default is 3
minAvailable	Integer	The minimal available pods to run for this Job
plugins	Object	Enabled task plugins when creating job.
policies	Array of <a href="#">spec.policies</a> objects	Specifies the default lifecycle of tasks
queue	String	The name of the queue on which job should be created
schedulerName	String	SchedulerName is the default value of <i>tasks.template.spec.schedulerName</i> .
tasks	Array of <a href="#">spec.tasks</a> objects	Tasks specifies the task specification of Job



Parameter	Type	Description
volumes	Array of <a href="#">spec.volumes</a> objects	The volumes for Job

**Table 5-3342** spec.policies

Parameter	Type	Description
action	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	String	The Event recorded by scheduler; the controller takes actions according to this Event.
timeout	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3343** spec.tasks

Parameter	Type	Description
name	String	Name specifies the name of tasks
policies	Array of <a href="#">spec.tasks.policies</a> objects	Specifies the lifecycle of task
replicas	Integer	Replicas specifies the replicas of this TaskSpec in Job
template	Object	Specifies the pod that will be created for this TaskSpec when executing a Job

**Table 5-3344** spec.tasks.policies

Parameter	Type	Description
action	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	String	The Event recorded by scheduler; the controller takes actions according to this Event.

Parameter	Type	Description
timeout	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3345** spec.volumes

Parameter	Type	Description
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
volumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> object	VolumeClaim defines the PVC used by the VolumeMount.
volumeClaim Name	String	The name of the volume claim.

**Table 5-3346** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

Parameter	Type	Description
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-3347** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3348** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3349** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3350** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>



Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-3351** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-3352** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-3353** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-3354** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-3355** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-3356** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Table 5-3357** status

Parameter	Type	Description
ControlledResources	Map<String,String>	All of the resources that are controlled by this job.
Succeeded	Integer	The number of pods which reached phase Succeeded.
failed	Integer	The number of pods which reached phase Failed.
minAvailable	Integer	The minimal available pods to run for this Job
pending	Integer	The number of pending pods.
retryCount	Integer	The number that volcano retried to submit the job.
running	Integer	The number of running pods.
state	<a href="#">status.state</a> object	Current state of Job.
version	Integer	Job's current version

**Table 5-3358** status.state

Parameter	Type	Description
message	String	Human-readable message indicating details about last transition.
phase	String	The phase of Job
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.

**Status code: 202**

**Table 5-3359** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata</a>
spec	<a href="#">spec</a> object	Specification of the desired behavior of a cron job, including the minAvailable
status	<a href="#">status</a> object	Current status of Job

**Table 5-3360** spec

Parameter	Type	Description
maxRetry	Integer	The limit for retrying submitting job, default is 3
minAvailable	Integer	The minimal available pods to run for this Job
plugins	Object	Enabled task plugins when creating job.
policies	Array of <a href="#">spec.policies</a> objects	Specifies the default lifecycle of tasks
queue	String	The name of the queue on which job should be created
schedulerName	String	SchedulerName is the default value of <i>tasks.template.spec.schedulerName</i> .
tasks	Array of <a href="#">spec.tasks</a> objects	Tasks specifies the task specification of Job

Parameter	Type	Description
volumes	Array of <a href="#">spec.volumes</a> objects	The volumes for Job

**Table 5-3361** spec.policies

Parameter	Type	Description
action	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	String	The Event recorded by scheduler; the controller takes actions according to this Event.
timeout	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3362** spec.tasks

Parameter	Type	Description
name	String	Name specifies the name of tasks
policies	Array of <a href="#">spec.tasks.policies</a> objects	Specifies the lifecycle of task
replicas	Integer	Replicas specifies the replicas of this TaskSpec in Job
template	Object	Specifies the pod that will be created for this TaskSpec when executing a Job

**Table 5-3363** spec.tasks.policies

Parameter	Type	Description
action	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	String	The Event recorded by scheduler; the controller takes actions according to this Event.

Parameter	Type	Description
timeout	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3364** spec.volumes

Parameter	Type	Description
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
volumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> object	VolumeClaim defines the PVC used by the VolumeMount.
volumeClaim Name	String	The name of the volume claim.

**Table 5-3365** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

Parameter	Type	Description
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-3366** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.



Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3367** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3368** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3369** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-3370** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-3371** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-3372** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-3373** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-3374** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-3375** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.



Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Table 5-3376** status

Parameter	Type	Description
ControlledResources	Map<String,String>	All of the resources that are controlled by this job.
Succeeded	Integer	The number of pods which reached phase Succeeded.
failed	Integer	The number of pods which reached phase Failed.
minAvailable	Integer	The minimal available pods to run for this Job
pending	Integer	The number of pending pods.
retryCount	Integer	The number that volcano retried to submit the job.
running	Integer	The number of running pods.
state	<a href="#">status.state</a> object	Current state of Job.
version	Integer	Job's current version

**Table 5-3377** status.state

Parameter	Type	Description
message	String	Human-readable message indicating details about last transition.
phase	String	The phase of Job
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.







Status Code	Description
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	AlreadyExists
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.8.4 Deleting a Volcano Job

### Function

This API is used to delete a specified Volcano job.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /apis/batch.volcano.sh/v1alpha1/namespaces/{namespace}/jobs/{name}

**Table 5-3378** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Job
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3379** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.

Parameter	Mandatory	Type	Description
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3380** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-3381** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>



Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-3382** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

Status code: 200

**Table 5-3383** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3384** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3385** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional.  Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"

Parameter	Type	Description
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-3386** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Status code: 202

Table 5-3387 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3388** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>

Parameter	Type	Description
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3389** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-3390** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.

Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "v1",
  "details": {
    "group": "batch.volcano.sh",
    "kind": "jobs",
    "name": "openmpi-hello-3-com",
    "uid": "1a32a8c4-97db-11e9-9d09-dc9914fb58e0"
  },
}
```



```
"kind" : "Status",  
"metadata" : { },  
"status" : "Success"  
}
```

## Status Codes

Status Code	Description
200	OK
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.8.5 Querying a Volcano Job

### Function

This API is used to query the details about a specified Volcano job.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/batch.volcano.sh/v1alpha1/namespaces/{namespace}/jobs/{name}

**Table 5-3391** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Job
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3392** Query Parameters

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3393** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-3394** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata</a>
spec	<a href="#">spec</a> object	Specification of the desired behavior of a cron job, including the minAvailable
status	<a href="#">status</a> object	Current status of Job

**Table 5-3395** spec

Parameter	Type	Description
maxRetry	Integer	The limit for retrying submitting job, default is 3
minAvailable	Integer	The minimal available pods to run for this Job
plugins	Object	Enabled task plugins when creating job.
policies	Array of <a href="#">spec.policies</a> objects	Specifies the default lifecycle of tasks
queue	String	The name of the queue on which job should be created
schedulerName	String	SchedulerName is the default value of <i>tasks.template.spec.schedulerName</i> .
tasks	Array of <a href="#">spec.tasks</a> objects	Tasks specifies the task specification of Job

Parameter	Type	Description
volumes	Array of <a href="#">spec.volumes</a> objects	The volumes for Job

**Table 5-3396** spec.policies

Parameter	Type	Description
action	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	String	The Event recorded by scheduler; the controller takes actions according to this Event.
timeout	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3397** spec.tasks

Parameter	Type	Description
name	String	Name specifies the name of tasks
policies	Array of <a href="#">spec.tasks.policies</a> objects	Specifies the lifecycle of task
replicas	Integer	Replicas specifies the replicas of this TaskSpec in Job
template	Object	Specifies the pod that will be created for this TaskSpec when executing a Job

**Table 5-3398** spec.tasks.policies

Parameter	Type	Description
action	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	String	The Event recorded by scheduler; the controller takes actions according to this Event.

Parameter	Type	Description
timeout	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3399** spec.volumes

Parameter	Type	Description
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
volumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> object	VolumeClaim defines the PVC used by the VolumeMount.
volumeClaim Name	String	The name of the volume claim.

**Table 5-3400** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

Parameter	Type	Description
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-3401** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>



Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3402** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3403** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3404** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-3405** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-3406** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-3407** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-3408** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-3409** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-3410** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Table 5-3411** status

Parameter	Type	Description
ControlledResources	Map<String,String>	All of the resources that are controlled by this job.
Succeeded	Integer	The number of pods which reached phase Succeeded.
failed	Integer	The number of pods which reached phase Failed.
minAvailable	Integer	The minimal available pods to run for this Job
pending	Integer	The number of pending pods.
retryCount	Integer	The number that volcano retried to submit the job.
running	Integer	The number of running pods.
state	<a href="#">status.state</a> object	Current state of Job.
version	Integer	Job's current version

**Table 5-3412** status.state

Parameter	Type	Description
message	String	Human-readable message indicating details about last transition.
phase	String	The phase of Job
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "batch.volcano.sh/v1alpha1",
  "kind": "Job",
  "metadata": {
    "creationTimestamp": "2019-06-26T06:24:50Z",
    "generation": 1,
    "name": "openmpi-hello-3-com",
    "namespace": "cci-namespace-42263891",
    "resourceVersion": "7681358",
    "selfLink": "/apis/batch.volcano.sh/v1alpha1/namespaces/cci-namespace-42263891/jobs/openmpi-hello-3-com",
    "uid": "1a32a8c4-97db-11e9-9d09-dc9914fb58e0"
  },
  "spec": {
    "minAvailable": 1,
    "plugins": {
      "env": [],
      "ssh": [],
      "svc": []
    },
    "queue": "default",
    "schedulerName": "volcano",
    "tasks": [ {
      "name": "mpimaster",
      "policies": [ {
        "action": "CompleteJob",
        "event": "TaskCompleted"
      } ],
      "replicas": 1,
      "template": {
        "spec": {
          "containers": [ {
            "command": [ "/bin/sh", "-c", "MPI_HOST=`cat /etc/volcano/mpiworker.host | tr '\\n\\n' '\\,\\';\\nmkdir -p /var/run/sshdir; /usr/sbin/sshd;\\nmpiexec --allow-run-as-root --host ${MPI_HOST} -np 2 mpi_hello_world 003e /home/re" ],
            "image": "*/*:20202/swr/openmpi-hello:3.28",
            "name": "mpimaster",
            "ports": [ {
              "containerPort": 22,
              "name": "mpijob-port"
            } ],
            "resources": {
              "limits": {
                "cpu": "250m",
                "memory": "1Gi"
              },
              "requests": {
                "cpu": "250m",
                "memory": "1Gi"
              }
            },
            "workingDir": "/home"
          } ],
          "imagePullSecrets": [ {
            "name": "imagepull-secret"
          } ],
          "restartPolicy": "OnFailure"
        }
      }
    } ]
  }
}
```





Status Code	Description
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.8.6 Updating a Volcano Job

### Function

This API is used to update a specified Volcano job.

The following fields can be updated:

- **metadata.labels**
- **metadata.generateName**
- **metadata.annotations**
- **spec.template**
- **spec.replicas**

### Calling Method

For details, see [Calling APIs](#).

### URI

PATCH /apis/batch.volcano.sh/v1alpha1/namespaces/{namespace}/jobs/{name}

**Table 5-3413** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Job
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3414** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3415** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	<p>Currently, three types of patch request methods are supported. For details, see "Update API Objects in Place Using kubectl patch" (<a href="https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/">https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/</a>).</p> <ul style="list-style-type: none"> <li>• <b>Json Patch, Content-Type: application/json-patch+json</b> As defined in RFC6902, Json Patch contains a series of operations on a JSON object. After receiving the object, the server applies the represented operations to the JSON object.</li> <li>• <b>Merge Patch, Content-Type: application/merge-patch+json</b> According to RFC 7386, Merge Patch contains some description of a JSON object. The JSON object is submitted to the server end and merges with the current object of the server end, which means to replace the list field of the current resource object to form a new object.</li> <li>• <b>Strategic Merge Patch, Content-Type: application/strategic-merge-patch+json</b> Strategic Merge Patch is used to add legal metadata to API objects and uses new metadata to determine which lists should be merged and which ones should not. The current metadata is used as the structure labels.</li> </ul>

**Table 5-3416** Request body parameters

Parameter	Mandatory	Type	Description
-	Yes	Object	Patch is provided to give a concrete name and type to the Kubernetes PATCH request body.

## Response Parameters

Status code: 200

**Table 5-3417** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata</a>
spec	<a href="#">spec</a> object	Specification of the desired behavior of a cron job, including the minAvailable
status	<a href="#">status</a> object	Current status of Job

**Table 5-3418** spec

Parameter	Type	Description
maxRetry	Integer	The limit for retrying submitting job, default is 3
minAvailable	Integer	The minimal available pods to run for this Job

Parameter	Type	Description
plugins	Object	Enabled task plugins when creating job.
policies	Array of <a href="#">spec.policies</a> objects	Specifies the default lifecycle of tasks
queue	String	The name of the queue on which job should be created
schedulerName	String	SchedulerName is the default value of <i>tasks.template.spec.schedulerName</i> .
tasks	Array of <a href="#">spec.tasks</a> objects	Tasks specifies the task specification of Job
volumes	Array of <a href="#">spec.volumes</a> objects	The volumes for Job

**Table 5-3419** spec.policies

Parameter	Type	Description
action	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	String	The Event recorded by scheduler; the controller takes actions according to this Event.
timeout	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3420** spec.tasks

Parameter	Type	Description
name	String	Name specifies the name of tasks
policies	Array of <a href="#">spec.tasks.policies</a> objects	Specifies the lifecycle of task
replicas	Integer	Replicas specifies the replicas of this TaskSpec in Job
template	Object	Specifies the pod that will be created for this TaskSpec when executing a Job

**Table 5-3421** spec.tasks.policies

Parameter	Type	Description
action	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	String	The Event recorded by scheduler; the controller takes actions according to this Event.
timeout	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3422** spec.volumes

Parameter	Type	Description
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
volumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> object	VolumeClaim defines the PVC used by the VolumeMount.
volumeClaim Name	String	The name of the volume claim.

**Table 5-3423** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-3424** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>



Parameter	Type	Description
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3425** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3426** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3427** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-3428** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-3429** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-3430** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-3431** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-3432** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-3433** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.



Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Table 5-3434** status

Parameter	Type	Description
ControlledResources	Map<String,String>	All of the resources that are controlled by this job.
Succeeded	Integer	The number of pods which reached phase Succeeded.
failed	Integer	The number of pods which reached phase Failed.
minAvailable	Integer	The minimal available pods to run for this Job
pending	Integer	The number of pending pods.
retryCount	Integer	The number that volcano retried to submit the job.
running	Integer	The number of running pods.
state	<a href="#">status.state</a> object	Current state of Job.
version	Integer	Job's current version

**Table 5-3435** status.state

Parameter	Type	Description
message	String	Human-readable message indicating details about last transition.
phase	String	The phase of Job
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.

## Example Requests

Changing the **labels** value of an existing Volcano job to **"app": "patchlabel"**

```
{
  "metadata": {
    "labels": {
      "app": "patchlabel"
    }
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "batch.volcano.sh/v1alpha1",
  "kind": "Job",
  "metadata": {
    "creationTimestamp": "2019-06-26T03:16:26Z",
    "generation": 1,
    "labels": {
      "app": "patchlabel"
    },
    "name": "openmpi-hello-2-com",
    "namespace": "cci-namespace-42263891",
    "resourceVersion": "7695210",
    "selfLink": "/apis/batch.volcano.sh/v1alpha1/namespaces/cci-namespace-42263891/jobs/openmpi-hello-2-com",
    "uid": "c84d86f0-97c0-11e9-9d09-dc9914fb58e0"
  },
  "spec": {
    "minAvailable": 1,
    "plugins": {
      "env": [],
      "ssh": [],
      "svc": []
    },
    "queue": "default",
    "schedulerName": "volcano",
    "tasks": [ {
      "name": "mpimaster",
      "policies": [ {
        "action": "CompleteJob",
        "event": "TaskCompleted"
      } ],
      "replicas": 1,
      "template": {
        "spec": {
          "containers": [ {
            "command": [ "/bin/sh", "-c", "MPI_HOST=`cat /etc/volcano/mpiworker.host | tr '\\n' '\\,\\,\\,\\n';\nmkdir -p /var/run/ssh; /usr/sbin/ssh; \nmpixec --allow-run-as-root --host ${MPI_HOST} -np 2\nmpi_hello_world 003e /home/re" ],
            "image": "***:20202/swr/openmpi-hello:3.28",
            "name": "mpimaster",
            "ports": [ {
              "containerPort": 22,
              "name": "mpijob-port"
            } ],
            "resources": {
              "limits": {
                "cpu": "250m",
                "memory": "1Gi"
              },
              "requests": {
```



Status Code	Description
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.8.7 Replacing a Volcano Job

### Function

This API is used to replace a specified Volcano job.

The following fields can be updated:

- **metadata.labels**
- **metadata.generateName**
- **metadata.annotations**
- **spec.template**
- **spec.replicas**

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /apis/batch.volcano.sh/v1alpha1/namespaces/{namespace}/jobs/{name}

**Table 5-3436** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Job

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3437** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3438** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-3439** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata</a>
spec	No	<a href="#">spec</a> object	Specification of the desired behavior of a cron job, including the minAvailable
status	No	<a href="#">status</a> object	Current status of Job

**Table 5-3440 spec**

Parameter	Mandatory	Type	Description
maxRetry	No	Integer	The limit for retrying submitting job, default is 3
minAvailable	No	Integer	The minimal available pods to run for this Job
plugins	No	Object	Enabled task plugins when creating job.
policies	No	Array of <a href="#">spec.policies</a> objects	Specifies the default lifecycle of tasks
queue	No	String	The name of the queue on which job should be created
schedulerName	No	String	SchedulerName is the default value of <i>tasks.template.spec.schedulerName</i> .
tasks	No	Array of <a href="#">spec.tasks</a> objects	Tasks specifies the task specification of Job
volumes	No	Array of <a href="#">spec.volumes</a> objects	The volumes for Job

**Table 5-3441 spec.policies**

Parameter	Mandatory	Type	Description
action	No	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	No	String	The Event recorded by scheduler; the controller takes actions according to this Event.
timeout	No	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3442** spec.tasks

Parameter	Mandatory	Type	Description
name	No	String	Name specifies the name of tasks
policies	No	Array of <a href="#">spec.tasks.policies</a> objects	Specifies the lifecycle of task
replicas	No	Integer	Replicas specifies the replicas of this TaskSpec in Job
template	No	Object	Specifies the pod that will be created for this TaskSpec when executing a Job

**Table 5-3443** spec.tasks.policies

Parameter	Mandatory	Type	Description
action	No	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	No	String	The Event recorded by scheduler; the controller takes actions according to this Event.
timeout	No	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3444** spec.volumes

Parameter	Mandatory	Type	Description
mountPath	Yes	String	Path within the container at which the volume should be mounted. Must not contain '!'.
volumeClaim	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> object	VolumeClaim defines the PVC used by the VolumeMount.
volumeClaim Name	No	String	The name of the volume claim.



**Table 5-3445** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-3446** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3447** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'



**Table 5-3448** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3449** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Mandatory	Type	Description
dataSource	No	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	No	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>

Parameter	Mandatory	Type	Description
volumeMode	No	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	No	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-3450** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Mandatory	Type	Description
apiGroup	No	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	Yes	String	Kind is the type of resource being referenced
name	Yes	String	Name is the name of resource being referenced

**Table 5-3451** io.k8s.api.core.v1.ResourceRequirements

Parameter	Mandatory	Type	Description
limits	No	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Mandatory	Type	Description
requests	No	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-3452** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	No	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-3453** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	key is the label key that the selector applies to.
operator	Yes	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.

Parameter	Mandatory	Type	Description
values	No	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-3454** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	No	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	No	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	No	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-3455** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Mandatory	Type	Description
lastProbeTime	No	String	Last time we probed the condition.
lastTransitionTime	No	String	Last time the condition transitioned from one status to another.

Parameter	Mandatory	Type	Description
message	No	String	Human-readable message indicating details about last transition.
reason	No	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	Yes	String	status is the status of the condition.
type	Yes	String	type is the type of the condition.

**Table 5-3456** status

Parameter	Mandatory	Type	Description
ControlledResources	No	Map<String,String>	All of the resources that are controlled by this job.
Succeeded	No	Integer	The number of pods which reached phase Succeeded.
failed	No	Integer	The number of pods which reached phase Failed.
minAvailable	No	Integer	The minimal available pods to run for this Job
pending	No	Integer	The number of pending pods.
retryCount	No	Integer	The number that volcano retried to submit the job.
running	No	Integer	The number of running pods.
state	No	<a href="#">status.state</a> object	Current state of Job.
version	No	Integer	Job's current version

**Table 5-3457** status.state

Parameter	Mandatory	Type	Description
message	No	String	Human-readable message indicating details about last transition.
phase	No	String	The phase of Job
reason	No	String	Unique, one-word, CamelCase reason for the condition's last transition.

## Response Parameters

Status code: 200

**Table 5-3458** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata</a>
spec	<a href="#">spec</a> object	Specification of the desired behavior of a cron job, including the minAvailable
status	<a href="#">status</a> object	Current status of Job

**Table 5-3459 spec**

Parameter	Type	Description
maxRetry	Integer	The limit for retrying submitting job, default is 3
minAvailable	Integer	The minimal available pods to run for this Job
plugins	Object	Enabled task plugins when creating job.
policies	Array of <a href="#">spec.policies</a> objects	Specifies the default lifecycle of tasks
queue	String	The name of the queue on which job should be created
schedulerName	String	SchedulerName is the default value of <i>tasks.template.spec.schedulerName</i> .
tasks	Array of <a href="#">spec.tasks</a> objects	Tasks specifies the task specification of Job
volumes	Array of <a href="#">spec.volumes</a> objects	The volumes for Job

**Table 5-3460 spec.policies**

Parameter	Type	Description
action	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	String	The Event recorded by scheduler; the controller takes actions according to this Event.
timeout	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3461 spec.tasks**

Parameter	Type	Description
name	String	Name specifies the name of tasks
policies	Array of <a href="#">spec.tasks.policies</a> objects	Specifies the lifecycle of task



Parameter	Type	Description
replicas	Integer	Replicas specifies the replicas of this TaskSpec in Job
template	Object	Specifies the pod that will be created for this TaskSpec when executing a Job

**Table 5-3462** spec.tasks.policies

Parameter	Type	Description
action	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	String	The Event recorded by scheduler; the controller takes actions according to this Event.
timeout	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3463** spec.volumes

Parameter	Type	Description
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
volumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> object	VolumeClaim defines the PVC used by the VolumeMount.
volumeClaim Name	String	The name of the volume claim.

**Table 5-3464** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-3465** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3466** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3467** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3468** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-3469** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.



Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-3470** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-3471** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-3472** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-3473** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-3474** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Table 5-3475** status

Parameter	Type	Description
ControlledResources	Map<String,String>	All of the resources that are controlled by this job.
Succeeded	Integer	The number of pods which reached phase Succeeded.
failed	Integer	The number of pods which reached phase Failed.
minAvailable	Integer	The minimal available pods to run for this Job
pending	Integer	The number of pending pods.
retryCount	Integer	The number that volcano retried to submit the job.
running	Integer	The number of running pods.
state	<a href="#">status.state</a> object	Current state of Job.
version	Integer	Job's current version

**Table 5-3476** status.state

Parameter	Type	Description
message	String	Human-readable message indicating details about last transition.
phase	String	The phase of Job
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.

**Status code: 201**

**Table 5-3477** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata</a>
spec	<a href="#">spec</a> object	Specification of the desired behavior of a cron job, including the minAvailable
status	<a href="#">status</a> object	Current status of Job

**Table 5-3478** spec

Parameter	Type	Description
maxRetry	Integer	The limit for retrying submitting job, default is 3
minAvailable	Integer	The minimal available pods to run for this Job
plugins	Object	Enabled task plugins when creating job.
policies	Array of <a href="#">spec.policies</a> objects	Specifies the default lifecycle of tasks
queue	String	The name of the queue on which job should be created
schedulerName	String	SchedulerName is the default value of <i>tasks.template.spec.schedulerName</i> .
tasks	Array of <a href="#">spec.tasks</a> objects	Tasks specifies the task specification of Job

Parameter	Type	Description
volumes	Array of <a href="#">spec.volumes</a> objects	The volumes for Job

**Table 5-3479** spec.policies

Parameter	Type	Description
action	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	String	The Event recorded by scheduler; the controller takes actions according to this Event.
timeout	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3480** spec.tasks

Parameter	Type	Description
name	String	Name specifies the name of tasks
policies	Array of <a href="#">spec.tasks.policies</a> objects	Specifies the lifecycle of task
replicas	Integer	Replicas specifies the replicas of this TaskSpec in Job
template	Object	Specifies the pod that will be created for this TaskSpec when executing a Job

**Table 5-3481** spec.tasks.policies

Parameter	Type	Description
action	String	The action that will be taken to the PodGroup according to Event. One of "Restart", "None". Default to None.
event	String	The Event recorded by scheduler; the controller takes actions according to this Event.

Parameter	Type	Description
timeout	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 5-3482** spec.volumes

Parameter	Type	Description
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
volumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> object	VolumeClaim defines the PVC used by the VolumeMount.
volumeClaim Name	String	The name of the volume claim.

**Table 5-3483** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

Parameter	Type	Description
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-3484** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>



Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3485** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3486** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3487** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-3488** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-3489** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-3490** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-3491** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-3492** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-3493** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Table 5-3494** status

Parameter	Type	Description
ControlledResources	Map<String,String>	All of the resources that are controlled by this job.
Succeeded	Integer	The number of pods which reached phase Succeeded.
failed	Integer	The number of pods which reached phase Failed.
minAvailable	Integer	The minimal available pods to run for this Job
pending	Integer	The number of pending pods.
retryCount	Integer	The number that volcano retried to submit the job.
running	Integer	The number of running pods.
state	<a href="#">status.state</a> object	Current state of Job.
version	Integer	Job's current version

**Table 5-3495** status.state

Parameter	Type	Description
message	String	Human-readable message indicating details about last transition.
phase	String	The phase of Job
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.



## Example Requests

Changing the number of replicas from 1 to 2 for a Volcano job task

```
{
  "apiVersion": "batch.volcano.sh/v1alpha1",
  "kind": "Job",
  "metadata": {
    "name": "openmpi-hello-2-com",
    "namespace": "cci-gpu",
    "resourceVersion": "125597961"
  },
  "spec": {
    "minAvailable": 2,
    "plugins": {
      "env": [],
      "ssh": [],
      "svc": []
    },
    "queue": "default",
    "schedulerName": "volcano",
    "tasks": [ {
      "name": "mpimaster",
      "policies": [ {
        "action": "CompleteJob",
        "event": "TaskCompleted"
      } ],
      "replicas": 1,
      "template": {
        "spec": {
          "containers": [ {
            "command": [ "/bin/sh", "-c", "MPI_HOST=`cat /etc/volcano/mpiworker.host | tr '\\n\\n' \\,\\\";\\nmkdir -p /var/run/sshd; /usr/sbin/sshd;\\nmpiexec --allow-run-as-root --host ${MPI_HOST} -np 2 mpi_hello_world 003e /home/re" ],
            "image": "*:*:20202/swr/openmpi-hello:3.28",
            "name": "mpimaster",
            "ports": [ {
              "containerPort": 22,
              "name": "mpijob-port"
            } ],
            "resources": {
              "limits": {
                "cpu": "250m",
                "memory": "1Gi"
              },
              "requests": {
                "cpu": "250m",
                "memory": "1Gi"
              }
            },
            "workingDir": "/home"
          } ],
          "imagePullSecrets": [ {
            "name": "imagepull-secret"
          } ],
          "restartPolicy": "OnFailure"
        }
      }, {
        "name": "mpiworker",
        "replicas": 2,
        "template": {
          "spec": {
            "containers": [ {
              "command": [ "/bin/sh", "-c", "mkdir -p /var/run/sshd; /usr/sbin/sshd -D;" ],
              "image": "*:*:20202/swr/openmpi-hello:3.28",
              "name": "mpiworker",
              "ports": [ {
                "containerPort": 22,
```

```
    "name" : "mpijob-port"
  } ],
  "resources" : {
    "limits" : {
      "cpu" : "250m",
      "memory" : "1Gi"
    },
    "requests" : {
      "cpu" : "250m",
      "memory" : "1Gi"
    }
  },
  "workingDir" : "/home"
}],
"imagePullSecrets" : [ {
  "name" : "imagepull-secret"
}],
"restartPolicy" : "OnFailure"
}
}
}
}],
},
"status" : {
  "minAvailable" : 1,
  "pending" : 3,
  "state" : {
    "phase" : "Succeed"
  }
}
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion" : "batch.volcano.sh/v1alpha1",
  "kind" : "Job",
  "metadata" : {
    "creationTimestamp" : "2019-07-11T08:09:41Z",
    "generation" : 2,
    "name" : "openmpi-hello-2-com",
    "namespace" : "zjh-gpu",
    "resourceVersion" : "125620754",
    "selfLink" : "/apis/batch.volcano.sh/v1alpha1/namespaces/zjh-gpu/jobs/openmpi-hello-2-com",
    "uid" : "3bdba739-a3b3-11e9-8865-501d93440997"
  },
  "spec" : {
    "minAvailable" : 2,
    "plugins" : {
      "env" : [ ],
      "ssh" : [ ],
      "svc" : [ ]
    },
    "queue" : "default",
    "schedulerName" : "volcano",
    "tasks" : [ {
      "name" : "mpimaster",
      "policies" : [ {
        "action" : "CompleteJob",
        "event" : "TaskCompleted"
      } ],
      "replicas" : 1,
      "template" : {
        "spec" : {
          "containers" : [ {
            "command" : [ "/bin/sh", "-c", "MPI_HOST=`cat /etc/volcano/mpiworker.host | tr '\\n'"
          ]
        }
      }
    } ],
    "template" : {
      "spec" : {
        "containers" : [ {
          "command" : [ "/bin/sh", "-c", "MPI_HOST=`cat /etc/volcano/mpiworker.host | tr '\\n'"
        } ]
      }
    }
  }
}
```

```
\,\";\nmkdir -p /var/run/sshhd; /usr/sbin/sshhd;\nmpirexec --allow-run-as-root --host ${MPI_HOST} -np 2
mpi_hello_world 003e /home/re" ],
  "image": "**.*.*:20202/swr/openmpi-hello:3.28",
  "name": "mpimaster",
  "ports": [ {
    "containerPort": 22,
    "name": "mpijob-port"
  } ],
  "resources": {
    "limits": {
      "cpu": "250m",
      "memory": "1Gi"
    },
    "requests": {
      "cpu": "250m",
      "memory": "1Gi"
    }
  },
  "workingDir": "/home"
}],
"imagePullSecrets": [ {
  "name": "imagepull-secret"
}],
"restartPolicy": "OnFailure"
}
}
}, {
  "name": "mpiworker",
  "replicas": 2,
  "template": {
    "spec": {
      "containers": [ {
        "command": [ "/bin/sh", "-c", "mkdir -p /var/run/sshhd; /usr/sbin/sshhd -D;" ],
        "image": "**.*.*:20202/swr/openmpi-hello:3.28",
        "name": "mpiworker",
        "ports": [ {
          "containerPort": 22,
          "name": "mpijob-port"
        } ],
        "resources": {
          "limits": {
            "cpu": "250m",
            "memory": "1Gi"
          },
          "requests": {
            "cpu": "250m",
            "memory": "1Gi"
          }
        },
        "workingDir": "/home"
      } ],
      "imagePullSecrets": [ {
        "name": "imagepull-secret"
      } ],
      "restartPolicy": "OnFailure"
    }
  }
}
}
},
"status": {
  "minAvailable": 1,
  "pending": 3,
  "state": {
    "phase": "Inqueue"
  }
}
}
```

## Status Codes

Status Code	Description
200	OK
201	Created
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.9 Namespace

### 5.9.1 Querying All Namespaces

#### Function

This API is used to query the details about all namespaces in the current project.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /api/v1/namespaces

**Table 5-3496** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.



## Request Parameters

**Table 5-3497** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-3498** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.core.v1.Namespace</a> objects	Items is the list of Namespace objects in the list. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/">https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

**Table 5-3499** io.k8s.api.core.v1.Namespace

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.NamespaceSpec</a> object	Spec defines the behavior of the Namespace. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.NamespaceStatus</a> object	Status describes the current status of a Namespace. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3500** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3501** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3502** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3503** io.k8s.api.core.v1.NamespaceSpec

Parameter	Type	Description
finalizers	Array of strings	Finalizers is an opaque list of values that must be empty to permanently remove object from storage. More info: <a href="https://kubernetes.io/docs/tasks/administer-cluster/namespaces/">https://kubernetes.io/docs/tasks/administer-cluster/namespaces/</a>



**Table 5-3504** io.k8s.api.core.v1.NamespaceStatus

Parameter	Type	Description
conditions	Array of <a href="#">io.k8s.api.core.v1.NamespaceCondition</a> objects	Represents the latest available observations of a namespace's current state.
phase	String	Phase is the current lifecycle phase of the namespace. More info: <a href="https://kubernetes.io/docs/tasks/administer-cluster/namespaces/">https://kubernetes.io/docs/tasks/administer-cluster/namespaces/</a>

**Table 5-3505** io.k8s.api.core.v1.NamespaceCondition

Parameter	Type	Description
lastTransitionTime	String	Time is a wrapper around time.Time which supports correct marshaling to YAML and JSON. Wrappers are provided for many of the factory methods that the time package offers.
message	String	
reason	String	
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of namespace controller condition.

**Table 5-3506** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.

Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "items": [ {
    "metadata": {
      "creationTimestamp": "2017-06-24T02:05:16Z",
      "name": "default",
      "resourceVersion": "6",
      "selfLink": "/api/v1/namespaces/default",
```

```

    "uid" : "90dd5244-5881-11e7-b5d7-fa163e08a2fd"
  },
  "spec" : {
    "finalizers" : [ "kubernetes" ]
  },
  "status" : {
    "phase" : "Active"
  }
}, {
  "metadata" : {
    "creationTimestamp" : "2017-06-24T02:05:17Z",
    "name" : "kube-system",
    "resourceVersion" : "25",
    "selfLink" : "/api/v1/namespaces/kube-system",
    "uid" : "9178fce6-5881-11e7-b5d7-fa163e08a2fd"
  },
  "spec" : {
    "finalizers" : [ "kubernetes" ]
  },
  "status" : {
    "phase" : "Active"
  }
}],
"kind" : "NamespaceList",
"metadata" : {
  "resourceVersion" : "594181",
  "selfLink" : "/api/v1/namespaces"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.9.2 Creating a Namespace

### Function

This API is used to create a namespace.

Currently, CCI provides two types of resources: general-computing resources and GPU-accelerated resources. When creating a namespace, you need to select a type. Subsequent workloads will run on clusters of this type. When calling an API, set the **namespace.kubernetes.io/flavor** field in **metadata.annotations** to the following value:

- **general-computing:** This type of namespace provides basic computing, storage, and network resources, well suited to common workload scenarios.
- **gpu-accelerated:** This type of namespace provides outstanding graphics processing capacity, applicable to high-performance computing scenarios, such as AI.

A network must be created in a namespace to define the mapping between this network and a Virtual Private Cloud (VPC). For more information, see "Namespace and Network" (devg\_na.xml).

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /api/v1/namespaces

**Table 5-3507** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

Parameter	Mandatory	Type	Description
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3508** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-3509** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Mandatory	Type	Description
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.core.v1.NamespaceSpec</a> object	Spec defines the behavior of the Namespace. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	No	<a href="#">io.k8s.api.core.v1.NamespaceStatus</a> object	Status describes the current status of a Namespace. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3510** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Mandatory	Type	Description
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>



Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3511** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3512** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3513** io.k8s.api.core.v1.NamespaceSpec

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	Finalizers is an opaque list of values that must be empty to permanently remove object from storage. More info: <a href="https://kubernetes.io/docs/tasks/administer-cluster/namespaces/">https://kubernetes.io/docs/tasks/administer-cluster/namespaces/</a>

**Table 5-3514** io.k8s.api.core.v1.NamespaceStatus

Parameter	Mandatory	Type	Description
conditions	No	Array of <a href="#">io.k8s.api.core.v1.NamespaceCondition</a> objects	Represents the latest available observations of a namespace's current state.
phase	No	String	Phase is the current lifecycle phase of the namespace. More info: <a href="https://kubernetes.io/docs/tasks/administer-cluster/namespaces/">https://kubernetes.io/docs/tasks/administer-cluster/namespaces/</a>

**Table 5-3515** io.k8s.api.core.v1.NamespaceCondition

Parameter	Mandatory	Type	Description
lastTransitionTime	No	String	Time is a wrapper around time.Time which supports correct marshaling to YAML and JSON. Wrappers are provided for many of the factory methods that the time package offers.
message	No	String	
reason	No	String	
status	Yes	String	Status of the condition, one of True, False, Unknown.
type	Yes	String	Type of namespace controller condition.

## Response Parameters

Status code: 200

**Table 5-3516** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.NamespaceSpec</a> object	Spec defines the behavior of the Namespace. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.NamespaceStatus</a> object	Status describes the current status of a Namespace. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3517** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>



Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3518** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3519** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3520** io.k8s.api.core.v1.NamespaceSpec

Parameter	Type	Description
finalizers	Array of strings	Finalizers is an opaque list of values that must be empty to permanently remove object from storage. More info: <a href="https://kubernetes.io/docs/tasks/administer-cluster/namespaces/">https://kubernetes.io/docs/tasks/administer-cluster/namespaces/</a>

**Table 5-3521** io.k8s.api.core.v1.NamespaceStatus

Parameter	Type	Description
conditions	Array of <a href="#">io.k8s.api.core.v1.NamespaceCondition</a> objects	Represents the latest available observations of a namespace's current state.
phase	String	Phase is the current lifecycle phase of the namespace. More info: <a href="https://kubernetes.io/docs/tasks/administer-cluster/namespaces/">https://kubernetes.io/docs/tasks/administer-cluster/namespaces/</a>

**Table 5-3522** io.k8s.api.core.v1.NamespaceCondition

Parameter	Type	Description
lastTransitionTime	String	Time is a wrapper around time.Time which supports correct marshaling to YAML and JSON. Wrappers are provided for many of the factory methods that the time package offers.
message	String	
reason	String	
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of namespace controller condition.

**Status code: 201**

**Table 5-3523** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.NamespaceSpec</a> object	Spec defines the behavior of the Namespace. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.NamespaceStatus</a> object	Status describes the current status of a Namespace. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3524** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.



Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3525** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3526** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3527** io.k8s.api.core.v1.NamespaceSpec

Parameter	Type	Description
finalizers	Array of strings	Finalizers is an opaque list of values that must be empty to permanently remove object from storage. More info: <a href="https://kubernetes.io/docs/tasks/administer-cluster/namespaces/">https://kubernetes.io/docs/tasks/administer-cluster/namespaces/</a>

**Table 5-3528** io.k8s.api.core.v1.NamespaceStatus

Parameter	Type	Description
conditions	Array of <a href="#">io.k8s.api.core.v1.NamespaceCondition</a> objects	Represents the latest available observations of a namespace's current state.
phase	String	Phase is the current lifecycle phase of the namespace. More info: <a href="https://kubernetes.io/docs/tasks/administer-cluster/namespaces/">https://kubernetes.io/docs/tasks/administer-cluster/namespaces/</a>

**Table 5-3529** io.k8s.api.core.v1.NamespaceCondition

Parameter	Type	Description
lastTransitionTime	String	Time is a wrapper around time.Time which supports correct marshaling to YAML and JSON. Wrappers are provided for many of the factory methods that the time package offers.
message	String	
reason	String	
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of namespace controller condition.

**Status code: 202**

**Table 5-3530** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.NamespaceSpec</a> object	Spec defines the behavior of the Namespace. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.NamespaceStatus</a> object	Status describes the current status of a Namespace. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3531** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>



Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3532** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3533** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3534** io.k8s.api.core.v1.NamespaceSpec

Parameter	Type	Description
finalizers	Array of strings	Finalizers is an opaque list of values that must be empty to permanently remove object from storage. More info: <a href="https://kubernetes.io/docs/tasks/administer-cluster/namespaces/">https://kubernetes.io/docs/tasks/administer-cluster/namespaces/</a>

**Table 5-3535** io.k8s.api.core.v1.NamespaceStatus

Parameter	Type	Description
conditions	Array of <a href="#">io.k8s.api.core.v1.NamespaceCondition</a> objects	Represents the latest available observations of a namespace's current state.
phase	String	Phase is the current lifecycle phase of the namespace. More info: <a href="https://kubernetes.io/docs/tasks/administer-cluster/namespaces/">https://kubernetes.io/docs/tasks/administer-cluster/namespaces/</a>

**Table 5-3536** io.k8s.api.core.v1.NamespaceCondition

Parameter	Type	Description
lastTransitionTime	String	Time is a wrapper around time.Time which supports correct marshaling to YAML and JSON. Wrappers are provided for many of the factory methods that the time package offers.
message	String	
reason	String	
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of namespace controller condition.

## Example Requests

Creating a GPU-accelerated namespace

```
{
  "apiVersion": "v1",
  "kind": "Namespace",
  "metadata": {
    "annotations": {
      "namespace.kubernetes.io/flavor": "gpu-accelerated"
    },
    "labels": {
      "sys_enterprise_project_id": "0"
    },
    "name": "namespace-test"
  }
}
```

## Example Responses

**Status code: 201**

Created

```
{
  "metadata": {
    "annotations": {
      "namespace.kubernetes.io/flavor": "gpu-accelerated",
      "pv.kubernetes.io/enable-dynamic-provisioning": "true",
      "tenant.kubernetes.io/domain-id": "aadb43c0b14c4cafbcfff483d075987",
      "tenant.kubernetes.io/domain-name": "cci",
      "tenant.kubernetes.io/project-id": "51bf52609f2a49c68bfda3398817b376",
      "tenant.kubernetes.io/project-name": "southchina"
    },
    "creationTimestamp": "2018-09-03T11:20:48Z",
    "labels": {
      "sys_enterprise_project_id": "0503dda897000fed2f78c00909158a4d"
    },
    "name": "namespace-test",
    "resourceVersion": "5016746",
    "selfLink": "/api/v1/namespaces/namespace-test",
    "uid": "68a68c5a-af6b-11e8-8f17-c81fbc371a17"
  },
  "spec": {
    "finalizers": [ "kubernetes" ]
  },
  "status": {
    "phase": "Active"
  }
}
```

## Status Codes

Status Code	Description
200	OK
201	Created
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	AlreadyExists
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.9.3 Deleting a Namespace

### Function

This API is used to delete a specified namespace.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /api/v1/namespaces/{name}

**Table 5-3537** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Namespace

**Table 5-3538** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

Table 5-3539 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.



Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-3540** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.

Parameter	Mandatory	Type	Description
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-3541** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

Status code: 200

**Table 5-3542** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3543** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3544** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-3545** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.

Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

**Status code: 202**

**Table 5-3546** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3547** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.

Parameter	Type	Description
kind	String	The kind attribute of the resource associated with the status <code>StatusReason</code> . On some operations may differ from the requested resource <code>Kind</code> . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status <code>StatusReason</code> (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3548** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.



**Table 5-3549** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

Deleting a namespace (Wait for 10 seconds before the deletion.)

```
{
  "apiVersion": "v1",
  "gracePeriodSeconds": 10,
  "kind": "DeleteOptions"
}
```

## Example Responses

None

## Status Codes

Status Code	Description
200	OK
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.9.4 Querying a Namespace

### Function

This API is used to query the details about a specified namespace.

## Calling Method

For details, see [Calling APIs](#).

## URI

GET /api/v1/namespaces/{name}

**Table 5-3550** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Namespace

**Table 5-3551** Query Parameters

Parameter	Mandatory	Type	Description
exact	No	Boolean	Should the export be exact. Exact export maintains cluster-specific fields like 'Namespace'. Deprecated. Planned for removal in 1.18.
export	No	Boolean	Should this value be exported. Export strips fields that a user can not specify. Deprecated. Planned for removal in 1.18.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3552** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

**Status code: 200**

**Table 5-3553** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.NamespaceSpec</a> object	Spec defines the behavior of the Namespace. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.NamespaceStatus</a> object	Status describes the current status of a Namespace. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3554** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.



Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3555** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3556** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3557** io.k8s.api.core.v1.NamespaceSpec

Parameter	Type	Description
finalizers	Array of strings	Finalizers is an opaque list of values that must be empty to permanently remove object from storage. More info: <a href="https://kubernetes.io/docs/tasks/administer-cluster/namespaces/">https://kubernetes.io/docs/tasks/administer-cluster/namespaces/</a>

**Table 5-3558** io.k8s.api.core.v1.NamespaceStatus

Parameter	Type	Description
conditions	Array of <a href="#">io.k8s.api.core.v1.NamespaceCondition</a> objects	Represents the latest available observations of a namespace's current state.
phase	String	Phase is the current lifecycle phase of the namespace. More info: <a href="https://kubernetes.io/docs/tasks/administer-cluster/namespaces/">https://kubernetes.io/docs/tasks/administer-cluster/namespaces/</a>

**Table 5-3559** io.k8s.api.core.v1.NamespaceCondition

Parameter	Type	Description
lastTransitionTime	String	Time is a wrapper around time. Time which supports correct marshaling to YAML and JSON. Wrappers are provided for many of the factory methods that the time package offers.
message	String	
reason	String	
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of namespace controller condition.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "metadata": {
    "annotations": {
      "namespace.kubernetes.io/flavor": "gpu-accelerated",
      "pv.kubernetes.io/enable-dynamic-provisioning": "true",
      "tenant.kubernetes.io/domain-id": "aadb43c0b14c4cafbccff483d075987",
      "tenant.kubernetes.io/domain-name": "cci",
      "tenant.kubernetes.io/project-id": "51bf52609f2a49c68bfda3398817b376",
      "tenant.kubernetes.io/project-name": "southchina"
    },
    "creationTimestamp": "2018-09-03T11:20:48Z",
    "name": "namespace-test",
    "resourceVersion": "5016746",
    "selfLink": "/api/v1/namespaces/namespace-test",
  }
}
```

```
"uid" : "68a68c5a-af6b-11e8-8f17-c81fbe371a17"  
},  
"spec" : {  
  "finalizers" : [ "kubernetes" ]  
},  
"status" : {  
  "phase" : "Active"  
}  
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.10 ClusterRole

### 5.10.1 Listing ClusterRoles

#### Function

This API is used to list or watch objects of kind ClusterRole

#### Calling Method

For details, see [Calling APIs](#).

**URI**

GET /apis/rbac.authorization.k8s.io/v1/clusterroles

**Table 5-3560** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.



## Request Parameters

**Table 5-3561** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-3562** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.rbac.v1.ClusterRole</a> objects	Items is a list of ClusterRoles
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard object's metadata.

**Table 5-3563** io.k8s.api.rbac.v1.ClusterRole

Parameter	Type	Description
aggregationRule	<a href="#">io.k8s.api.rbac.v1.AggregationRule</a> object	AggregationRule is an optional field that describes how to build the Rules for this ClusterRole. If AggregationRule is set, then the Rules are controller managed and direct changes to Rules will be stomped by the controller.
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata.
rules	Array of <a href="#">io.k8s.api.rbac.v1.PolicyRule</a> objects	Rules holds all the PolicyRules for this ClusterRole

**Table 5-3564** io.k8s.api.rbac.v1.AggregationRule

Parameter	Type	Description
clusterRoleSelectors	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> objects	ClusterRoleSelectors holds a list of selectors which will be used to find ClusterRoles and create the rules. If any of the selectors match, then the ClusterRole's permissions will be added

**Table 5-3565** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-3566** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-3567** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3568** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.



Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3569** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3570** io.k8s.api.rbac.v1.PolicyRule

Parameter	Type	Description
apiGroups	Array of strings	APIGroups is the name of the APIGroup that contains the resources. If multiple API groups are specified, any action requested against one of the enumerated resources in any API group will be allowed.

Parameter	Type	Description
nonResourceURLs	Array of strings	NonResourceURLs is a set of partial urls that a user should have access to. *s are allowed, but only as the full, final step in the path Since non-resource URLs are not namespaced, this field is only applicable for ClusterRoles referenced from a ClusterRoleBinding. Rules can either apply to API resources (such as "pods" or "secrets") or non-resource URL paths (such as "/api"), but not both.
resourceNames	Array of strings	ResourceNames is an optional white list of names that the rule applies to. An empty set means that everything is allowed.
resources	Array of strings	Resources is a list of resources this rule applies to. ResourceAll represents all resources.
verbs	Array of strings	Verbs is a list of Verbs that apply to ALL the ResourceKinds and AttributeRestrictions contained in this rule. VerbAll represents all kinds.

**Table 5-3571** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.

Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "rbac.authorization.k8s.io/v1",
  "items": [ {
    "metadata": {
      "creationTimestamp": "2018-11-27T01:55:44Z",
      "name": "secret-reader",
      "resourceVersion": "4619",
      "selfLink": "/apis/rbac.authorization.k8s.io/v1/clusterroles/secret-reader",
```

```
"uid" : "8d358854-f1e7-11e8-b449-fa163ec24e06"
},
"rules" : [ {
  "apiGroups" : [ "" ],
  "resources" : [ "secrets" ],
  "verbs" : [ "get", "watch", "list" ]
} ]
}],
"kind" : "ClusterRoleList",
"metadata" : {
  "resourceVersion" : "4622",
  "selfLink" : "/apis/rbac.authorization.k8s.io/v1/clusterroles"
}
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.10.2 Querying a Cluster Role

### Function

This API is used to read the specified ClusterRole

### Calling Method

For details, see [Calling APIs](#).

## URI

GET /apis/rbac.authorization.k8s.io/v1/clusterroles/{name}

**Table 5-3572** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the ClusterRole

**Table 5-3573** Query Parameters

Parameter	Mandatory	Type	Description
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3574** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-3575** Response body parameters

Parameter	Type	Description
aggregationRule	<a href="#">io.k8s.api.rbac.v1.AggregationRule</a> object	AggregationRule is an optional field that describes how to build the Rules for this ClusterRole. If AggregationRule is set, then the Rules are controller managed and direct changes to Rules will be stomped by the controller.

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata.
rules	Array of <a href="#">io.k8s.api.rbac.v1.PolicyRule</a> objects	Rules holds all the PolicyRules for this ClusterRole

**Table 5-3576** io.k8s.api.rbac.v1.AggregationRule

Parameter	Type	Description
clusterRoleSelectors	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> objects	ClusterRoleSelectors holds a list of selectors which will be used to find ClusterRoles and create the rules. If any of the selectors match, then the ClusterRole's permissions will be added

**Table 5-3577** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-3578** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-3579** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.



Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3580** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3581** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3582** io.k8s.api.rbac.v1.PolicyRule

Parameter	Type	Description
apiGroups	Array of strings	APIGroups is the name of the APIGroup that contains the resources. If multiple API groups are specified, any action requested against one of the enumerated resources in any API group will be allowed.

Parameter	Type	Description
nonResourceURLs	Array of strings	NonResourceURLs is a set of partial urls that a user should have access to. *s are allowed, but only as the full, final step in the path Since non-resource URLs are not namespaced, this field is only applicable for ClusterRoles referenced from a ClusterRoleBinding. Rules can either apply to API resources (such as "pods" or "secrets") or non-resource URL paths (such as "/api"), but not both.
resourceNames	Array of strings	ResourceNames is an optional white list of names that the rule applies to. An empty set means that everything is allowed.
resources	Array of strings	Resources is a list of resources this rule applies to. ResourceAll represents all resources.
verbs	Array of strings	Verbs is a list of Verbs that apply to ALL the ResourceKinds and AttributeRestrictions contained in this rule. VerbAll represents all kinds.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "rbac.authorization.k8s.io/v1",
  "kind": "ClusterRole",
  "metadata": {
    "creationTimestamp": "2018-11-27T03:03:00Z",
    "name": "secret-reader",
    "resourceVersion": "13211",
    "selfLink": "/apis/rbac.authorization.k8s.io/v1/clusterroles/secret-reader",
    "uid": "f2cf199e-f1f0-11e8-b449-fa163ec24e06"
  },
  "rules": [ {
    "apiGroups": [ "" ],
    "resources": [ "secrets" ],
    "verbs": [ "get", "watch", "list" ]
  } ]
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.11 Secret

### 5.11.1 Deleting Secrets in a Namespace

#### Function

This API is used to delete all secrets in a specified namespace.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

DELETE /api/v1/namespaces/{namespace}/secrets

**Table 5-3583** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects



**Table 5-3584** Query Parameters

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset

Parameter	Mandatory	Type	Description
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3585** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-3586** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-3587** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

Status code: 200

**Table 5-3588** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>



**Table 5-3589** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3590** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional.  Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"

Parameter	Type	Description
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-3591** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "v1",
  "items": [ {
    "data": {
      "data_key_1": "dGVzdA==",
      "data_key_2": "dGVzdA==",
      "data_key_3": "dGVzdA==",
      "data_key_4": "dGVzdA==",
      "data_key_5": "dGVzdA==",
      "data_key_6": "dGVzdA==",
      "data_key_7": "dGVzdA==",
      "data_key_8": "dGVzdA==",
      "data_key_9": "dGVzdA==",
      "data_key_10": "dGVzdA=="
    },
    "metadata": {
      "annotations": {
        "description": "",
        "secret.cci.io/namespace-uid": "c1bbdefd-c577-11e9-9355-dc9914fb58e0"
      },
      "creationTimestamp": "2019-09-03T07:29:57Z",
      "labels": {
        "label_key": "label_value"
      },
      "name": "secret-1",
      "namespace": "testvipchange2",
      "resourceVersion": "39601847",
      "selfLink": "/api/v1/namespaces/testvipchange2/secrets/secret-1",
      "uid": "a1bfe325-ce1c-11e9-83db-dc9914fb58e0"
    }
  }
],
}
```

```

"type" : "Opaque"
}, {
  "data" : {
    "data_key_1" : "dGVzdA==",
    "data_key_2" : "dGVzdA==",
    "data_key_3" : "dGVzdA==",
    "data_key_4" : "dGVzdA==",
    "data_key_5" : "dGVzdA==",
    "data_key_6" : "dGVzdA==",
    "data_key_7" : "dGVzdA==",
    "data_key_8" : "dGVzdA==",
    "data_key_9" : "dGVzdA==",
    "data_key_10" : "dGVzdA=="
  },
  "metadata" : {
    "annotations" : {
      "description" : "",
      "secret.cci.io/namespace-uid" : "c1bbdefd-c577-11e9-9355-dc9914fb58e0"
    },
    "creationTimestamp" : "2019-09-03T07:29:58Z",
    "labels" : {
      "label_key" : "label_value"
    },
    "name" : "secret-3",
    "namespace" : "testvipchange2",
    "resourceVersion" : "39601852",
    "selfLink" : "/api/v1/namespaces/testvipchange2/secrets/secret-3",
    "uid" : "a1cbf6a2-ce1c-11e9-83db-dc9914fb58e0"
  },
  "type" : "Opaque"
} ],
"kind" : "SecretList",
"metadata" : {
  "resourceVersion" : "39602472",
  "selfLink" : "/api/v1/namespaces/testvipchange2/secrets"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests

Status Code	Description
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.11.2 Querying Secrets in a Namespace

### Function

This API is used to query all secrets in a specified namespace.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /api/v1/namespaces/{namespace}/secrets

**Table 5-3592** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3593** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>



Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3594** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-3595** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.core.v1.Secret</a> objects	Items is a list of secret objects. More info: <a href="https://kubernetes.io/docs/concepts/configuration/secret">https://kubernetes.io/docs/concepts/configuration/secret</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

**Table 5-3596** io.k8s.api.core.v1.Secret

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
data	Map<String,String>	Data contains the secret data. Each key must consist of alphanumeric characters, '-', '_' or '.'. The serialized form of the secret data is a base64 encoded string, representing the arbitrary (possibly non-string) data value here. Described in <a href="https://tools.ietf.org/html/rfc4648#section-4">https://tools.ietf.org/html/rfc4648#section-4</a>
immutable	Boolean	Immutable, if set to true, ensures that data stored in the Secret cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
stringData	Map<String,String>	stringData allows specifying non-binary secret data in string form. It is provided as a write-only convenience method. All keys and values are merged into the data field on write, overwriting any existing values. It is never output when reading from the API.
type	String	Used to facilitate programmatic handling of secret data.

**Table 5-3597** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3598** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>



Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3599** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3600** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "items": [ {
    "apiVersion": "v1",
    "data": {
      "KEY": "VkFMVUU="
    },
    "kind": "Secret",
    "metadata": {
      "annotations": {
        "secret.cci.io/namespace-uid": "a9862108-5ef1-4ca5-bd26-8ed19da4ab0e"
      },
      "creationTimestamp": "2022-09-06T01:51:20Z",
      "name": "test-secret",
      "namespace": "namespace-test",
      "resourceVersion": "41271056",
      "selfLink": "/api/v1/namespaces/namespace-test/secrets/test-secret",
      "uid": "81ddca10-6784-40d7-a58e-05f1a6088d94"
    },
    "type": "Opaque"
  } ],
  "kind": "SecretList",
  "metadata": {
    "resourceVersion": "41327545",
    "selfLink": "/api/v1/namespaces/namespace-test/secrets"
  }
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid

Status Code	Description
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

### 5.11.3 Creating a Secret

#### Function

This API is used to create a secret that Kubernetes uses to process sensitive information.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

POST /api/v1/namespaces/{namespace}/secrets

**Table 5-3601** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3602** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

Parameter	Mandatory	Type	Description
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3603** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-3604** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Mandatory	Type	Description
data	No	Map<String,String>	Data contains the secret data. Each key must consist of alphanumeric characters, '-', '_' or '!'. The serialized form of the secret data is a base64 encoded string, representing the arbitrary (possibly non-string) data value here. Described in <a href="https://tools.ietf.org/html/rfc4648#section-4">https://tools.ietf.org/html/rfc4648#section-4</a>
immutable	No	Boolean	Immutable, if set to true, ensures that data stored in the Secret cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="https://git.k8s.io/api/meta/v1/objects">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
stringData	No	Map<String,String>	stringData allows specifying non-binary secret data in string form. It is provided as a write-only convenience method. All keys and values are merged into the data field on write, overwriting any existing values. It is never output when reading from the API.

Parameter	Mandatory	Type	Description
type	No	String	Used to facilitate programmatic handling of secret data.

**Table 5-3605** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Mandatory	Type	Description
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.



Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3606** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3607** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

## Response Parameters

Status code: 200

**Table 5-3608** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
data	Map<String,String>	Data contains the secret data. Each key must consist of alphanumeric characters, '-', '_' or '.'. The serialized form of the secret data is a base64 encoded string, representing the arbitrary (possibly non-string) data value here. Described in <a href="https://tools.ietf.org/html/rfc4648#section-4">https://tools.ietf.org/html/rfc4648#section-4</a>
immutable	Boolean	Immutable, if set to true, ensures that data stored in the Secret cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
stringData	Map<String,String>	stringData allows specifying non-binary secret data in string form. It is provided as a write-only convenience method. All keys and values are merged into the data field on write, overwriting any existing values. It is never output when reading from the API.
type	String	Used to facilitate programmatic handling of secret data.

**Table 5-3609** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>



Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3610** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3611** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Status code: 201**

**Table 5-3612** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
data	Map<String,String>	Data contains the secret data. Each key must consist of alphanumeric characters, '-', '_' or '.'. The serialized form of the secret data is a base64 encoded string, representing the arbitrary (possibly non-string) data value here. Described in <a href="https://tools.ietf.org/html/rfc4648#section-4">https://tools.ietf.org/html/rfc4648#section-4</a>
immutable	Boolean	Immutable, if set to true, ensures that data stored in the Secret cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
stringData	Map<String,String>	stringData allows specifying non-binary secret data in string form. It is provided as a write-only convenience method. All keys and values are merged into the data field on write, overwriting any existing values. It is never output when reading from the API.
type	String	Used to facilitate programmatic handling of secret data.

**Table 5-3613** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.



Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3614** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3615** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Status code: 202**

**Table 5-3616** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
data	Map<String,String>	Data contains the secret data. Each key must consist of alphanumeric characters, '-', '_' or '.'. The serialized form of the secret data is a base64 encoded string, representing the arbitrary (possibly non-string) data value here. Described in <a href="https://tools.ietf.org/html/rfc4648#section-4">https://tools.ietf.org/html/rfc4648#section-4</a>
immutable	Boolean	Immutable, if set to true, ensures that data stored in the Secret cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
stringData	Map<String,String>	stringData allows specifying non-binary secret data in string form. It is provided as a write-only convenience method. All keys and values are merged into the data field on write, overwriting any existing values. It is never output when reading from the API.
type	String	Used to facilitate programmatic handling of secret data.

**Table 5-3617** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>



Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3618** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3619** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

## Example Requests

Creating a secret with two key-value pairs

```
{
  "apiVersion": "v1",
  "data": {
    "key1": "MWYyZDFIMmU2N2Rm",
    "key2": "YWRTaW4="
  },
  "kind": "Secret",
  "metadata": {
```

```

    "name" : "secret-test"
  },
  "type" : "Opaque"
}

```

## Example Responses

**Status code: 201**

Created

```

{
  "apiVersion" : "v1",
  "data" : {
    "key1" : "MWYyZDFIMmU2N2Rm",
    "key2" : "YWRtaW4="
  },
  "kind" : "Secret",
  "metadata" : {
    "creationTimestamp" : "2018-09-04T03:59:19Z",
    "name" : "secret-test",
    "namespace" : "namespace-test",
    "resourceVersion" : "5177770",
    "selfLink" : "/api/v1/namespaces/namespace-test/secrets/secret-test",
    "uid" : "e6170b6d-aff6-11e8-8f17-c81fbe371a17"
  },
  "type" : "Opaque"
}

```

## Status Codes

Status Code	Description
200	OK
201	Created
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	AlreadyExists
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable

Status Code	Description
504	ServerTimeout

## 5.11.4 Deleting a Secret

### Function

This API is used to delete a secret.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /api/v1/namespaces/{namespace}/secrets/{name}

**Table 5-3620** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Secret
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3621** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

Parameter	Mandatory	Type	Description
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3622** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-3623** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed



Parameter	Mandatory	Type	Description
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.

Parameter	Mandatory	Type	Description
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-3624** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

**Status code: 200**

**Table 5-3625** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.

Parameter	Type	Description
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3626** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.

Parameter	Type	Description
kind	String	The kind attribute of the resource associated with the status <code>StatusReason</code> . On some operations may differ from the requested resource <code>Kind</code> . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status <code>StatusReason</code> (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3627** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-3628** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

**Status code: 202**

**Table 5-3629** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3630** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3631** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional.  Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"

Parameter	Type	Description
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-3632** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.



Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

### Example Requests

```
{
  "apiVersion": "v1",
  "gracePeriodSeconds": 10,
  "kind": "DeleteOptions"
}
```

### Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "code": 200,
  "details": {
    "kind": "secrets",
    "name": "secret-test",
    "uid": "e6170b6d-aff6-11e8-8f17-c81fbe371a17"
  },
  "kind": "Status",
  "metadata": { },
  "status": "Success"
}
```

### Status Codes

Status Code	Description
200	OK
202	Accepted
400	BadRequest

Status Code	Description
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.11.5 Querying a Secret

### Function

This API is used to query the details about a specified secret.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /api/v1/namespaces/{namespace}/secrets/{name}

**Table 5-3633** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Secret
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3634** Query Parameters

Parameter	Mandatory	Type	Description
exact	No	Boolean	Should the export be exact. Exact export maintains cluster-specific fields like 'Namespace'. Deprecated. Planned for removal in 1.18.
export	No	Boolean	Should this value be exported. Export strips fields that a user can not specify. Deprecated. Planned for removal in 1.18.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3635** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

**Status code: 200**

**Table 5-3636** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
data	Map<String,String>	Data contains the secret data. Each key must consist of alphanumeric characters, '-', '_' or '.'. The serialized form of the secret data is a base64 encoded string, representing the arbitrary (possibly non-string) data value here. Described in <a href="https://tools.ietf.org/html/rfc4648#section-4">https://tools.ietf.org/html/rfc4648#section-4</a>
immutable	Boolean	Immutable, if set to true, ensures that data stored in the Secret cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
stringData	Map<String,String>	stringData allows specifying non-binary secret data in string form. It is provided as a write-only convenience method. All keys and values are merged into the data field on write, overwriting any existing values. It is never output when reading from the API.
type	String	Used to facilitate programmatic handling of secret data.

**Table 5-3637** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.



Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3638** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3639** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
```

```

"data" : {
  "key1" : "MWYyZDFIMmU2N2Rm",
  "test" : "dGVzdA=="
},
"kind" : "Secret",
"metadata" : {
  "creationTimestamp" : "2018-09-04T03:59:19Z",
  "name" : "secret-test",
  "namespace" : "namespace-test",
  "resourceVersion" : "5199399",
  "selfLink" : "/api/v1/namespaces/namespace-test/secrets/secret-test",
  "uid" : "e6170b6d-aff6-11e8-8f17-c81fbe371a17"
},
"type" : "Opaque"
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.11.6 Updating a Secret

### Function

This API is used to update partial information about a specified secret.

### Calling Method

For details, see [Calling APIs](#).

## URI

PATCH /api/v1/namespaces/{namespace}/secrets/{name}

**Table 5-3640** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Secret
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3641** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> . This field is required for apply requests (application/apply-patch) but optional for non-apply patch types (JsonPatch, MergePatch, StrategicMergePatch).
force	No	Boolean	Force is going to "force" Apply requests. It means user will re-acquire conflicting fields owned by other people. Force flag must be unset for non-apply patch requests.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

Table 5-3642 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	<p>Currently, three types of patch request methods are supported. For details, see "Update API Objects in Place Using kubectl patch" (<a href="https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/">https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/</a>).</p> <ul style="list-style-type: none"> <li>• <b>Json Patch, Content-Type: application/json-patch+json</b> As defined in RFC6902, Json Patch contains a series of operations on a JSON object. After receiving the object, the server applies the represented operations to the JSON object.</li> <li>• <b>Merge Patch, Content-Type: application/merge-patch+json</b> According to RFC 7386, Merge Patch contains some description of a JSON object. The JSON object is submitted to the server end and merges with the current object of the server end, which means to replace the list field of the current resource object to form a new object.</li> <li>• <b>Strategic Merge Patch, Content-Type: application/strategic-merge-patch+json</b> Strategic Merge Patch is used to add legal metadata to API objects and uses new metadata to determine which lists should be merged and which ones should not. The current metadata is used as the structure labels.</li> </ul>

**Table 5-3643** Request body parameters

Parameter	Mandatory	Type	Description
-	Yes	Object	Patch is provided to give a concrete name and type to the Kubernetes PATCH request body.

## Response Parameters

Status code: 200

**Table 5-3644** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
data	Map<String,String>	Data contains the secret data. Each key must consist of alphanumeric characters, '-', '_' or '.'. The serialized form of the secret data is a base64 encoded string, representing the arbitrary (possibly non-string) data value here. Described in <a href="https://tools.ietf.org/html/rfc4648#section-4">https://tools.ietf.org/html/rfc4648#section-4</a>
immutable	Boolean	Immutable, if set to true, ensures that data stored in the Secret cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
stringData	Map<String,String>	stringData allows specifying non-binary secret data in string form. It is provided as a write-only convenience method. All keys and values are merged into the data field on write, overwriting any existing values. It is never output when reading from the API.
type	String	Used to facilitate programmatic handling of secret data.

**Table 5-3645** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.



Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3646** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3647** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

## Example Requests

Changing the **data** value in the secret to **"test2": "dGVzdA=="**

Content-Type: application/merge-patch+json

```
{
  "data": {
    "test2": "dGVzdA=="
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "data": {
    "key1": "MWYyZDFIMmU2N2Rm",
    "key2": "YWRtaW4=",
    "test2": "dGVzdA=="
  },
  "kind": "Secret",
  "metadata": {
    "creationTimestamp": "2018-09-04T03:59:19Z",
    "name": "secret-test",
    "namespace": "namespace-test",
    "resourceVersion": "5199399",
    "selfLink": "/api/v1/namespaces/namespace-test/secrets/secret-test",
    "uid": "e6170b6d-aff6-11e8-8f17-c81fbe371a17"
  },
  "type": "Opaque"
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.11.7 Replacing a Secret

### Function

This API is used to replace a specified secret.

The following fields can be updated:

- **metadata.labels**
- **metadata.annotations**
- **data**
- If **type** is set to **Opaque**, the key and value of **data** can be updated.
- If **type** is not set to **Opaque**, only the value of **data** can be updated.

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /api/v1/namespaces/{namespace}/secrets/{name}

**Table 5-3648** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Secret
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3649** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

Parameter	Mandatory	Type	Description
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3650** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-3651** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>



Parameter	Mandatory	Type	Description
data	No	Map<String,String>	Data contains the secret data. Each key must consist of alphanumeric characters, '-', '_' or '!'. The serialized form of the secret data is a base64 encoded string, representing the arbitrary (possibly non-string) data value here. Described in <a href="https://tools.ietf.org/html/rfc4648#section-4">https://tools.ietf.org/html/rfc4648#section-4</a>
immutable	No	Boolean	Immutable, if set to true, ensures that data stored in the Secret cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
stringData	No	Map<String,String>	stringData allows specifying non-binary secret data in string form. It is provided as a write-only convenience method. All keys and values are merged into the data field on write, overwriting any existing values. It is never output when reading from the API.

Parameter	Mandatory	Type	Description
type	No	String	Used to facilitate programmatic handling of secret data.

**Table 5-3652** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Mandatory	Type	Description
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.



Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3653** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3654** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

## Response Parameters

Status code: 200

**Table 5-3655** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
data	Map<String,String>	Data contains the secret data. Each key must consist of alphanumeric characters, '-', '_' or '.'. The serialized form of the secret data is a base64 encoded string, representing the arbitrary (possibly non-string) data value here. Described in <a href="https://tools.ietf.org/html/rfc4648#section-4">https://tools.ietf.org/html/rfc4648#section-4</a>
immutable	Boolean	Immutable, if set to true, ensures that data stored in the Secret cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
stringData	Map<String,String>	stringData allows specifying non-binary secret data in string form. It is provided as a write-only convenience method. All keys and values are merged into the data field on write, overwriting any existing values. It is never output when reading from the API.
type	String	Used to facilitate programmatic handling of secret data.

**Table 5-3656** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3657** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>



Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3658** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Status code: 201**

**Table 5-3659** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
data	Map<String,String>	Data contains the secret data. Each key must consist of alphanumeric characters, '-', '_' or '!'. The serialized form of the secret data is a base64 encoded string, representing the arbitrary (possibly non-string) data value here. Described in <a href="https://tools.ietf.org/html/rfc4648#section-4">https://tools.ietf.org/html/rfc4648#section-4</a>
immutable	Boolean	Immutable, if set to true, ensures that data stored in the Secret cannot be updated (only object metadata can be modified). If not set to true, the field can be modified at any time. Defaulted to nil. This is a beta field enabled by ImmutableEphemeralVolumes feature gate.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
stringData	Map<String,String>	stringData allows specifying non-binary secret data in string form. It is provided as a write-only convenience method. All keys and values are merged into the data field on write, overwriting any existing values. It is never output when reading from the API.
type	String	Used to facilitate programmatic handling of secret data.

**Table 5-3660** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3661** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3662** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

## Example Requests

Changing the **key2** value of an existing secret to **test**

```
{
  "apiVersion": "v1",
  "data": {
    "key1": "MWYyZDFmU2N2Rm",
    "test": "dGVzdA=="
  },
  "kind": "Secret",
  "metadata": {
```



```

    "name" : "secret-test"
  },
  "type" : "Opaque"
}

```

## Example Responses

**Status code: 200**

OK

```

{
  "apiVersion" : "v1",
  "data" : {
    "key1" : "MWYyZDFIMmU2N2Rm",
    "test" : "dGVzdA=="
  },
  "kind" : "Secret",
  "metadata" : {
    "creationTimestamp" : "2018-09-04T03:59:19Z",
    "name" : "secret-test",
    "namespace" : "namespace-test",
    "resourceVersion" : "5199399",
    "selfLink" : "/api/v1/namespaces/namespace-test/secrets/secret-test",
    "uid" : "e6170b6d-aff6-11e8-8f17-c81fbe371a17"
  },
  "type" : "Opaque"
}

```

## Status Codes

Status Code	Description
200	OK
201	Created
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.12 Endpoint

### 5.12.1 Querying Endpoints in a Namespace

#### Function

This API is used to query all endpoints in a specified namespace.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /api/v1/namespaces/{namespace}/endpoints

**Table 5-3663** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3664** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3665** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-3666** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.core.v1.Endpoint</a> s objects	List of endpoints.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

**Table 5-3667** io.k8s.api.core.v1.Endpoints

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
subsets	Array of <a href="#">io.k8s.api.core.v1.EndpointSubset</a> objects	The set of all endpoints is the union of all subsets. Addresses are placed into subsets according to the IPs they share. A single address with multiple ports, some of which are ready and some of which are not (because they come from different containers) will result in the address being displayed in different subsets for the different ports. No address will appear in both Addresses and NotReadyAddresses in the same subset. Sets of addresses and ports that comprise a service.

**Table 5-3668** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.



Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3669** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3670** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3671** io.k8s.api.core.v1.EndpointSubset

Parameter	Type	Description
addresses	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports that are marked as ready. These endpoints should be considered safe for load balancers and clients to utilize.

Parameter	Type	Description
notReadyAddresses	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports but are not currently marked as ready because they have not yet finished starting, have recently failed a readiness check, or have recently failed a liveness check.
ports	Array of <a href="#">io.k8s.api.core.v1.EndpointPort</a> objects	Port numbers available on the related IP addresses.

**Table 5-3672** io.k8s.api.core.v1.EndpointAddress

Parameter	Type	Description
hostname	String	The Hostname of this endpoint
ip	String	The IP of this endpoint. May not be loopback (127.0.0.0/8), link-local (169.254.0.0/16), or link-local multicast ((224.0.0.0/24). IPv6 is also accepted but not fully supported on all platforms. Also, certain kubernetes components, like kube-proxy, are not IPv6 ready.
nodeName	String	Optional: Node hosting this endpoint. This can be used to determine endpoints local to a node.
targetRef	<a href="#">io.k8s.api.core.v1.ObjectReference</a> object	Reference to object providing the endpoint.

**Table 5-3673** io.k8s.api.core.v1.ObjectReference

Parameter	Type	Description
apiVersion	String	API version of the referent.

Parameter	Type	Description
fieldPath	String	If referring to a piece of an object instead of an entire object, this string should contain a valid JSON/Go field access statement, such as <code>desiredState.manifest.containers[2]</code> . For example, if the object reference is to a container within a pod, this would take on a value like: <code>"spec.containers{name}"</code> (where "name" refers to the name of the container that triggered the event) or if no container name is specified <code>"spec.containers[2]"</code> (container with index 2 in this pod). This syntax is chosen only to have some well-defined way of referencing a part of an object.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
namespace	String	Namespace of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/">https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/</a>
resourceVersion	String	Specific resourceVersion to which this reference is made, if any. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
uid	String	UID of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids</a>

**Table 5-3674** io.k8s.api.core.v1.EndpointPort

Parameter	Type	Description
appProtocol	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Unprefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as <code>mycompany.com/my-custom-protocol</code> . This is a beta field that is guarded by the <code>ServiceAppProtocol</code> feature gate and enabled by default.

Parameter	Type	Description
name	String	The name of this port. This must match the 'name' field in the corresponding ServicePort. Must be a DNS_LABEL. Optional only if one port is defined.
port	Integer	The port number of the endpoint.
protocol	String	The IP protocol for this port. Must be UDP, TCP, or SCTP. Default is TCP.

**Table 5-3675** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.



Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "v1",
  "items": [ {
    "metadata": {
      "creationTimestamp": "2018-01-13T08:40:21Z",
      "name": "kubernetes",
      "namespace": "default",
      "resourceVersion": "49",
      "selfLink": "/api/v1/namespaces/default/endpoints/kubernetes",
      "uid": "64593b5d-f83d-11e7-9c3c-fa163eb8ad1a"
    },
    "subsets": [ {
      "addresses": [ {
        "ip": "192.168.0.64"
      } ],
      "ports": [ {
        "name": "https",
        "port": 5444,
        "protocol": "TCP"
      } ]
    } ]
  } ],
  "kind": "EndpointsList",
  "metadata": {
    "resourceVersion": "598704",
    "selfLink": "/api/v1/namespaces/default/endpoints"
  }
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.12.2 Creating an Endpoint

### Function

This API is used to create an endpoint.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /api/v1/namespaces/{namespace}/endpoints

**Table 5-3676** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3677** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3678** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-3679** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
subsets	No	Array of <a href="#">io.k8s.api.core.v1.EndpointSubset</a> objects	The set of all endpoints is the union of all subsets. Addresses are placed into subsets according to the IPs they share. A single address with multiple ports, some of which are ready and some of which are not (because they come from different containers) will result in the address being displayed in different subsets for the different ports. No address will appear in both Addresses and NotReadyAddresses in the same subset. Sets of addresses and ports that comprise a service.

**Table 5-3680** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>



Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3681** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3682** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3683** io.k8s.api.core.v1.EndpointSubset

Parameter	Mandatory	Type	Description
addresses	No	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports that are marked as ready. These endpoints should be considered safe for load balancers and clients to utilize.

Parameter	Mandatory	Type	Description
notReadyAddresses	No	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports but are not currently marked as ready because they have not yet finished starting, have recently failed a readiness check, or have recently failed a liveness check.
ports	No	Array of <a href="#">io.k8s.api.core.v1.EndpointPort</a> objects	Port numbers available on the related IP addresses.

**Table 5-3684** io.k8s.api.core.v1.EndpointAddress

Parameter	Mandatory	Type	Description
hostname	No	String	The Hostname of this endpoint
ip	Yes	String	The IP of this endpoint. May not be loopback (127.0.0.0/8), link-local (169.254.0.0/16), or link-local multicast ((224.0.0.0/24). IPv6 is also accepted but not fully supported on all platforms. Also, certain kubernetes components, like kube-proxy, are not IPv6 ready.
nodeName	No	String	Optional: Node hosting this endpoint. This can be used to determine endpoints local to a node.
targetRef	No	<a href="#">io.k8s.api.core.v1.ObjectReference</a> object	Reference to object providing the endpoint.

**Table 5-3685** io.k8s.api.core.v1.ObjectReference

Parameter	Mandatory	Type	Description
apiVersion	No	String	API version of the referent.

Parameter	Mandatory	Type	Description
fieldPath	No	String	If referring to a piece of an object instead of an entire object, this string should contain a valid JSON/Go field access statement, such as <code>desiredState.manifest.containers[2]</code> . For example, if the object reference is to a container within a pod, this would take on a value like: <code>"spec.containers{name}"</code> (where "name" refers to the name of the container that triggered the event) or if no container name is specified <code>"spec.containers[2]"</code> (container with index 2 in this pod). This syntax is chosen only to have some well-defined way of referencing a part of an object.
kind	No	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
namespace	No	String	Namespace of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/">https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/</a>
resourceVersion	No	String	Specific resourceVersion to which this reference is made, if any. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>

Parameter	Mandatory	Type	Description
uid	No	String	UID of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids</a>

**Table 5-3686** io.k8s.api.core.v1.EndpointPort

Parameter	Mandatory	Type	Description
appProtocol	No	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Un-prefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as <code>mycompany.com/my-custom-protocol</code> . This is a beta field that is guarded by the <code>ServiceAppProtocol</code> feature gate and enabled by default.
name	No	String	The name of this port. This must match the 'name' field in the corresponding <code>ServicePort</code> . Must be a <code>DNS_LABEL</code> . Optional only if one port is defined.
port	Yes	Integer	The port number of the endpoint.
protocol	No	String	The IP protocol for this port. Must be UDP, TCP, or SCTP. Default is TCP.

## Response Parameters

Status code: 200

**Table 5-3687** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
subsets	Array of <a href="#">io.k8s.api.core.v1.EndpointSubset</a> objects	The set of all endpoints is the union of all subsets. Addresses are placed into subsets according to the IPs they share. A single address with multiple ports, some of which are ready and some of which are not (because they come from different containers) will result in the address being displayed in different subsets for the different ports. No address will appear in both Addresses and NotReadyAddresses in the same subset. Sets of addresses and ports that comprise a service.

**Table 5-3688** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>



Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3689** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3690** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3691** io.k8s.api.core.v1.EndpointSubset

Parameter	Type	Description
addresses	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports that are marked as ready. These endpoints should be considered safe for load balancers and clients to utilize.

Parameter	Type	Description
notReadyAddresses	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports but are not currently marked as ready because they have not yet finished starting, have recently failed a readiness check, or have recently failed a liveness check.
ports	Array of <a href="#">io.k8s.api.core.v1.EndpointPort</a> objects	Port numbers available on the related IP addresses.

**Table 5-3692** io.k8s.api.core.v1.EndpointAddress

Parameter	Type	Description
hostname	String	The Hostname of this endpoint
ip	String	The IP of this endpoint. May not be loopback (127.0.0.0/8), link-local (169.254.0.0/16), or link-local multicast ((224.0.0.0/24). IPv6 is also accepted but not fully supported on all platforms. Also, certain kubernetes components, like kube-proxy, are not IPv6 ready.
nodeName	String	Optional: Node hosting this endpoint. This can be used to determine endpoints local to a node.
targetRef	<a href="#">io.k8s.api.core.v1.ObjectReference</a> object	Reference to object providing the endpoint.

**Table 5-3693** io.k8s.api.core.v1.ObjectReference

Parameter	Type	Description
apiVersion	String	API version of the referent.

Parameter	Type	Description
fieldPath	String	If referring to a piece of an object instead of an entire object, this string should contain a valid JSON/Go field access statement, such as <code>desiredState.manifest.containers[2]</code> . For example, if the object reference is to a container within a pod, this would take on a value like: <code>"spec.containers{name}"</code> (where "name" refers to the name of the container that triggered the event) or if no container name is specified <code>"spec.containers[2]"</code> (container with index 2 in this pod). This syntax is chosen only to have some well-defined way of referencing a part of an object.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
namespace	String	Namespace of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/">https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/</a>
resourceVersion	String	Specific resourceVersion to which this reference is made, if any. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
uid	String	UID of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids</a>

**Table 5-3694** io.k8s.api.core.v1.EndpointPort

Parameter	Type	Description
appProtocol	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Unprefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as <code>mycompany.com/my-custom-protocol</code> . This is a beta field that is guarded by the <code>ServiceAppProtocol</code> feature gate and enabled by default.



Parameter	Type	Description
name	String	The name of this port. This must match the 'name' field in the corresponding ServicePort. Must be a DNS_LABEL. Optional only if one port is defined.
port	Integer	The port number of the endpoint.
protocol	String	The IP protocol for this port. Must be UDP, TCP, or SCTP. Default is TCP.

**Status code: 201**

**Table 5-3695** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
subsets	Array of <a href="#">io.k8s.api.core.v1.EndpointSubset</a> objects	The set of all endpoints is the union of all subsets. Addresses are placed into subsets according to the IPs they share. A single address with multiple ports, some of which are ready and some of which are not (because they come from different containers) will result in the address being displayed in different subsets for the different ports. No address will appear in both Addresses and NotReadyAddresses in the same subset. Sets of addresses and ports that comprise a service.

**Table 5-3696** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3697** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3698** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3699** io.k8s.api.core.v1.EndpointSubset

Parameter	Type	Description
addresses	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports that are marked as ready. These endpoints should be considered safe for load balancers and clients to utilize.

Parameter	Type	Description
notReadyAddresses	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports but are not currently marked as ready because they have not yet finished starting, have recently failed a readiness check, or have recently failed a liveness check.
ports	Array of <a href="#">io.k8s.api.core.v1.EndpointPort</a> objects	Port numbers available on the related IP addresses.

**Table 5-3700** io.k8s.api.core.v1.EndpointAddress

Parameter	Type	Description
hostname	String	The Hostname of this endpoint
ip	String	The IP of this endpoint. May not be loopback (127.0.0.0/8), link-local (169.254.0.0/16), or link-local multicast ((224.0.0.0/24). IPv6 is also accepted but not fully supported on all platforms. Also, certain kubernetes components, like kube-proxy, are not IPv6 ready.
nodeName	String	Optional: Node hosting this endpoint. This can be used to determine endpoints local to a node.
targetRef	<a href="#">io.k8s.api.core.v1.ObjectReference</a> object	Reference to object providing the endpoint.

**Table 5-3701** io.k8s.api.core.v1.ObjectReference

Parameter	Type	Description
apiVersion	String	API version of the referent.



Parameter	Type	Description
fieldPath	String	If referring to a piece of an object instead of an entire object, this string should contain a valid JSON/Go field access statement, such as <code>desiredState.manifest.containers[2]</code> . For example, if the object reference is to a container within a pod, this would take on a value like: <code>"spec.containers{name}"</code> (where "name" refers to the name of the container that triggered the event) or if no container name is specified <code>"spec.containers[2]"</code> (container with index 2 in this pod). This syntax is chosen only to have some well-defined way of referencing a part of an object.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
namespace	String	Namespace of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/">https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/</a>
resourceVersion	String	Specific resourceVersion to which this reference is made, if any. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
uid	String	UID of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids</a>

**Table 5-3702** io.k8s.api.core.v1.EndpointPort

Parameter	Type	Description
appProtocol	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Unprefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as <code>mycompany.com/my-custom-protocol</code> . This is a beta field that is guarded by the <code>ServiceAppProtocol</code> feature gate and enabled by default.

Parameter	Type	Description
name	String	The name of this port. This must match the 'name' field in the corresponding ServicePort. Must be a DNS_LABEL. Optional only if one port is defined.
port	Integer	The port number of the endpoint.
protocol	String	The IP protocol for this port. Must be UDP, TCP, or SCTP. Default is TCP.

**Status code: 202**

**Table 5-3703** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
subsets	Array of <a href="#">io.k8s.api.core.v1.EndpointSubset</a> objects	The set of all endpoints is the union of all subsets. Addresses are placed into subsets according to the IPs they share. A single address with multiple ports, some of which are ready and some of which are not (because they come from different containers) will result in the address being displayed in different subsets for the different ports. No address will appear in both Addresses and NotReadyAddresses in the same subset. Sets of addresses and ports that comprise a service.

**Table 5-3704** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3705** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3706** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3707** io.k8s.api.core.v1.EndpointSubset

Parameter	Type	Description
addresses	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports that are marked as ready. These endpoints should be considered safe for load balancers and clients to utilize.



Parameter	Type	Description
notReadyAddresses	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports but are not currently marked as ready because they have not yet finished starting, have recently failed a readiness check, or have recently failed a liveness check.
ports	Array of <a href="#">io.k8s.api.core.v1.EndpointPort</a> objects	Port numbers available on the related IP addresses.

**Table 5-3708** io.k8s.api.core.v1.EndpointAddress

Parameter	Type	Description
hostname	String	The Hostname of this endpoint
ip	String	The IP of this endpoint. May not be loopback (127.0.0.0/8), link-local (169.254.0.0/16), or link-local multicast ((224.0.0.0/24). IPv6 is also accepted but not fully supported on all platforms. Also, certain kubernetes components, like kube-proxy, are not IPv6 ready.
nodeName	String	Optional: Node hosting this endpoint. This can be used to determine endpoints local to a node.
targetRef	<a href="#">io.k8s.api.core.v1.ObjectReference</a> object	Reference to object providing the endpoint.

**Table 5-3709** io.k8s.api.core.v1.ObjectReference

Parameter	Type	Description
apiVersion	String	API version of the referent.

Parameter	Type	Description
fieldPath	String	If referring to a piece of an object instead of an entire object, this string should contain a valid JSON/Go field access statement, such as <code>desiredState.manifest.containers[2]</code> . For example, if the object reference is to a container within a pod, this would take on a value like: <code>"spec.containers{name}"</code> (where "name" refers to the name of the container that triggered the event) or if no container name is specified <code>"spec.containers[2]"</code> (container with index 2 in this pod). This syntax is chosen only to have some well-defined way of referencing a part of an object.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
namespace	String	Namespace of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/">https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/</a>
resourceVersion	String	Specific resourceVersion to which this reference is made, if any. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
uid	String	UID of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids</a>

**Table 5-3710** io.k8s.api.core.v1.EndpointPort

Parameter	Type	Description
appProtocol	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Unprefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as <code>mycompany.com/my-custom-protocol</code> . This is a beta field that is guarded by the <code>ServiceAppProtocol</code> feature gate and enabled by default.

Parameter	Type	Description
name	String	The name of this port. This must match the 'name' field in the corresponding ServicePort. Must be a DNS_LABEL. Optional only if one port is defined.
port	Integer	The port number of the endpoint.
protocol	String	The IP protocol for this port. Must be UDP, TCP, or SCTP. Default is TCP.

## Example Requests

Creating an endpoint with the port name set to **service0**, port number to 80, and protocol to TCP

```
{
  "apiVersion": "v1",
  "kind": "Endpoints",
  "metadata": {
    "name": "test-endpoint",
    "namespace": "test-namespace"
  },
  "subsets": [ {
    "addresses": [ {
      "ip": "192.168.226.222",
      "targetRef": {
        "kind": "Pod",
        "name": "nginx-686bccd6f-ccsqb",
        "namespace": "test-namespace",
        "resourceVersion": "262055491",
        "uid": "ae417968-4f69-40da-9228-2434671e9c66"
      }
    }
  ]
},
  "ports": [ {
    "name": "service0",
    "port": 80,
    "protocol": "TCP"
  }
]
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "Endpoints",
  "metadata": {
    "creationTimestamp": "2023-03-28T13:55:52Z",
    "name": "test-endpoint",
    "namespace": "test-namespace",
    "resourceVersion": "263538673",
    "selfLink": "/api/v1/namespaces/test-namespace/endpoints/test-endpoint",
    "uid": "3907aa64-c3f3-4de0-b938-9d23e8d12f94"
  },
  "subsets": [ {
    "addresses": [ {
```

```

"ip" : "192.168.226.222",
"targetRef" : {
  "kind" : "Pod",
  "name" : "nginx-686bccd6f-ccsqb",
  "namespace" : "test-namespace",
  "resourceVersion" : "262055491",
  "uid" : "ae417968-4f69-40da-9228-2434671e9c66"
},
"ports" : [ {
  "name" : "service0",
  "port" : 80,
  "protocol" : "TCP"
} ]
} ]
}

```

## Status Codes

Status Code	Description
200	OK
201	Created
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	AlreadyExists
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

### 5.12.3 Deleting an Endpoint

#### Function

This API is used to delete an endpoint.

## Calling Method

For details, see [Calling APIs](#).

## URI

DELETE /api/v1/namespaces/{namespace}/endpoints/{name}

**Table 5-3711** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Endpoints
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3712** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

Table 5-3713 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-3714** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.

Parameter	Mandatory	Type	Description
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.



**Table 5-3715** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

Status code: 200

**Table 5-3716** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3717** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3718** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-3719** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.

Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

**Status code: 202**

**Table 5-3720** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3721** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.

Parameter	Type	Description
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3722** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-3723** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion" : "v1",
  "details" : {
    "kind" : "endpoints",
    "name" : "test-endpoint",
    "uid" : "3907aa64-c3f3-4de0-b938-9d23e8d12f94"
  },
  "kind" : "Status",
  "metadata" : { },
  "status" : "Success"
}
```

## Status Codes

Status Code	Description
200	OK
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout



## 5.12.4 Querying an Endpoint

### Function

This API is used to query a specified endpoint.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /api/v1/namespaces/{namespace}/endpoints/{name}

**Table 5-3724** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Endpoints
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3725** Query Parameters

Parameter	Mandatory	Type	Description
exact	No	Boolean	Should the export be exact. Exact export maintains cluster-specific fields like 'Namespace'. Deprecated. Planned for removal in 1.18.
export	No	Boolean	Should this value be exported. Export strips fields that a user can not specify. Deprecated. Planned for removal in 1.18.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

Table 5-3726 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

Table 5-3727 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
subsets	Array of <a href="#">io.k8s.api.core.v1.EndpointSubset</a> objects	The set of all endpoints is the union of all subsets. Addresses are placed into subsets according to the IPs they share. A single address with multiple ports, some of which are ready and some of which are not (because they come from different containers) will result in the address being displayed in different subsets for the different ports. No address will appear in both Addresses and NotReadyAddresses in the same subset. Sets of addresses and ports that comprise a service.

**Table 5-3728** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3729** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3730** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3731** io.k8s.api.core.v1.EndpointSubset

Parameter	Type	Description
addresses	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports that are marked as ready. These endpoints should be considered safe for load balancers and clients to utilize.



Parameter	Type	Description
notReadyAddresses	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports but are not currently marked as ready because they have not yet finished starting, have recently failed a readiness check, or have recently failed a liveness check.
ports	Array of <a href="#">io.k8s.api.core.v1.EndpointPort</a> objects	Port numbers available on the related IP addresses.

**Table 5-3732** io.k8s.api.core.v1.EndpointAddress

Parameter	Type	Description
hostname	String	The Hostname of this endpoint
ip	String	The IP of this endpoint. May not be loopback (127.0.0.0/8), link-local (169.254.0.0/16), or link-local multicast ((224.0.0.0/24). IPv6 is also accepted but not fully supported on all platforms. Also, certain kubernetes components, like kube-proxy, are not IPv6 ready.
nodeName	String	Optional: Node hosting this endpoint. This can be used to determine endpoints local to a node.
targetRef	<a href="#">io.k8s.api.core.v1.ObjectReference</a> object	Reference to object providing the endpoint.

**Table 5-3733** io.k8s.api.core.v1.ObjectReference

Parameter	Type	Description
apiVersion	String	API version of the referent.

Parameter	Type	Description
fieldPath	String	If referring to a piece of an object instead of an entire object, this string should contain a valid JSON/Go field access statement, such as <code>desiredState.manifest.containers[2]</code> . For example, if the object reference is to a container within a pod, this would take on a value like: <code>"spec.containers{name}"</code> (where "name" refers to the name of the container that triggered the event) or if no container name is specified <code>"spec.containers[2]"</code> (container with index 2 in this pod). This syntax is chosen only to have some well-defined way of referencing a part of an object.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
namespace	String	Namespace of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/">https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/</a>
resourceVersion	String	Specific resourceVersion to which this reference is made, if any. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
uid	String	UID of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids</a>

**Table 5-3734** io.k8s.api.core.v1.EndpointPort

Parameter	Type	Description
appProtocol	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Unprefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as <code>mycompany.com/my-custom-protocol</code> . This is a beta field that is guarded by the <code>ServiceAppProtocol</code> feature gate and enabled by default.

Parameter	Type	Description
name	String	The name of this port. This must match the 'name' field in the corresponding ServicePort. Must be a DNS_LABEL. Optional only if one port is defined.
port	Integer	The port number of the endpoint.
protocol	String	The IP protocol for this port. Must be UDP, TCP, or SCTP. Default is TCP.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "Endpoints",
  "metadata": {
    "creationTimestamp": "2016-08-03T09:56:10Z",
    "name": "cluster-test",
    "namespace": "default",
    "resourceVersion": "18186",
    "selfLink": "/api/v1/namespaces/default/endpoints/cluster-test",
    "uid": "81b1503d-5960-11e6-b444-286ed488fafa"
  },
  "subsets": [ {
    "addresses": [ {
      "ip": "172.16.106.152"
    }, {
      "ip": "172.16.79.157"
    } ],
    "ports": [ {
      "port": 1,
      "protocol": "TCP"
    } ]
  } ]
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden

Status Code	Description
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.12.5 Updating an Endpoint

### Function

This API is used to update an endpoint.

### Calling Method

For details, see [Calling APIs](#).

### URI

PATCH /api/v1/namespaces/{namespace}/endpoints/{name}

**Table 5-3735** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Endpoints
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3736** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> . This field is required for apply requests (application/apply-patch) but optional for non-apply patch types (JsonPatch, MergePatch, StrategicMergePatch).
force	No	Boolean	Force is going to "force" Apply requests. It means user will re-acquire conflicting fields owned by other people. Force flag must be unset for non-apply patch requests.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3737** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	<p>Currently, three types of patch request methods are supported. For details, see "Update API Objects in Place Using kubectl patch" (<a href="https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/">https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/</a>).</p> <ul style="list-style-type: none"> <li>• <b>Json Patch, Content-Type: application/json-patch+json</b> As defined in RFC6902, Json Patch contains a series of operations on a JSON object. After receiving the object, the server applies the represented operations to the JSON object.</li> <li>• <b>Merge Patch, Content-Type: application/merge-patch+json</b> According to RFC 7386, Merge Patch contains some description of a JSON object. The JSON object is submitted to the server end and merges with the current object of the server end, which means to replace the list field of the current resource object to form a new object.</li> <li>• <b>Strategic Merge Patch, Content-Type: application/strategic-merge-patch+json</b> Strategic Merge Patch is used to add legal metadata to API objects and uses new metadata to determine which lists should be merged and which ones should not. The current metadata is used as the structure labels.</li> </ul>

**Table 5-3738** Request body parameters

Parameter	Mandatory	Type	Description
-	Yes	Object	Patch is provided to give a concrete name and type to the Kubernetes PATCH request body.

## Response Parameters

Status code: 200

**Table 5-3739** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
subsets	Array of <a href="#">io.k8s.api.core.v1.EndpointSubset</a> objects	The set of all endpoints is the union of all subsets. Addresses are placed into subsets according to the IPs they share. A single address with multiple ports, some of which are ready and some of which are not (because they come from different containers) will result in the address being displayed in different subsets for the different ports. No address will appear in both Addresses and NotReadyAddresses in the same subset. Sets of addresses and ports that comprise a service.

**Table 5-3740** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.



Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3741** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3742** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3743** io.k8s.api.core.v1.EndpointSubset

Parameter	Type	Description
addresses	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports that are marked as ready. These endpoints should be considered safe for load balancers and clients to utilize.

Parameter	Type	Description
notReadyAddresses	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports but are not currently marked as ready because they have not yet finished starting, have recently failed a readiness check, or have recently failed a liveness check.
ports	Array of <a href="#">io.k8s.api.core.v1.EndpointPort</a> objects	Port numbers available on the related IP addresses.

**Table 5-3744** io.k8s.api.core.v1.EndpointAddress

Parameter	Type	Description
hostname	String	The Hostname of this endpoint
ip	String	The IP of this endpoint. May not be loopback (127.0.0.0/8), link-local (169.254.0.0/16), or link-local multicast ((224.0.0.0/24). IPv6 is also accepted but not fully supported on all platforms. Also, certain kubernetes components, like kube-proxy, are not IPv6 ready.
nodeName	String	Optional: Node hosting this endpoint. This can be used to determine endpoints local to a node.
targetRef	<a href="#">io.k8s.api.core.v1.ObjectReference</a> object	Reference to object providing the endpoint.

**Table 5-3745** io.k8s.api.core.v1.ObjectReference

Parameter	Type	Description
apiVersion	String	API version of the referent.

Parameter	Type	Description
fieldPath	String	If referring to a piece of an object instead of an entire object, this string should contain a valid JSON/Go field access statement, such as <code>desiredState.manifest.containers[2]</code> . For example, if the object reference is to a container within a pod, this would take on a value like: <code>"spec.containers{name}"</code> (where "name" refers to the name of the container that triggered the event) or if no container name is specified <code>"spec.containers[2]"</code> (container with index 2 in this pod). This syntax is chosen only to have some well-defined way of referencing a part of an object.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
namespace	String	Namespace of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/">https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/</a>
resourceVersion	String	Specific resourceVersion to which this reference is made, if any. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
uid	String	UID of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids</a>

**Table 5-3746** io.k8s.api.core.v1.EndpointPort

Parameter	Type	Description
appProtocol	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Unprefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as <code>mycompany.com/my-custom-protocol</code> . This is a beta field that is guarded by the <code>ServiceAppProtocol</code> feature gate and enabled by default.

Parameter	Type	Description
name	String	The name of this port. This must match the 'name' field in the corresponding ServicePort. Must be a DNS_LABEL. Optional only if one port is defined.
port	Integer	The port number of the endpoint.
protocol	String	The IP protocol for this port. Must be UDP, TCP, or SCTP. Default is TCP.

## Example Requests

Updating an endpoint

```
[ {
  "op": "add",
  "path": "/metadata/annotations",
  "value": {
    "test-key": "test-value"
  }
}]
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "Endpoints",
  "metadata": {
    "annotations": {
      "test-key": "test-value"
    }
  },
  "creationTimestamp": "2023-03-28T13:55:52Z",
  "name": "test-endpoint",
  "namespace": "test-namespace",
  "resourceVersion": "263561274",
  "selfLink": "/api/v1/namespaces/test-namespace/endpoints/test-endpoint",
  "uid": "3907aa64-c3f3-4de0-b938-9d23e8d12f94"
},
"subsets": [ {
  "addresses": [ {
    "ip": "192.168.226.222",
    "targetRef": {
      "kind": "Pod",
      "name": "nginx-686bccd6f-ccsqb",
      "namespace": "test-namespace",
      "resourceVersion": "262055491",
      "uid": "ae417968-4f69-40da-9228-2434671e9c66"
    }
  }
  ],
  "ports": [ {
    "name": "service0",
    "port": 80,
    "protocol": "TCP"
  }
  ]
}
}]
```



## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.12.6 Replacing an Endpoint

### Function

This API is used to replace an endpoint.

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /api/v1/namespaces/{namespace}/endpoints/{name}

**Table 5-3747** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Endpoints
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3748** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3749** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-3750** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
subsets	No	Array of <a href="#">io.k8s.api.core.v1.EndpointSubset</a> objects	The set of all endpoints is the union of all subsets. Addresses are placed into subsets according to the IPs they share. A single address with multiple ports, some of which are ready and some of which are not (because they come from different containers) will result in the address being displayed in different subsets for the different ports. No address will appear in both Addresses and NotReadyAddresses in the same subset. Sets of addresses and ports that comprise a service.

**Table 5-3751** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>



Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3752** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3753** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3754** io.k8s.api.core.v1.EndpointSubset

Parameter	Mandatory	Type	Description
addresses	No	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports that are marked as ready. These endpoints should be considered safe for load balancers and clients to utilize.

Parameter	Mandatory	Type	Description
notReadyAddresses	No	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports but are not currently marked as ready because they have not yet finished starting, have recently failed a readiness check, or have recently failed a liveness check.
ports	No	Array of <a href="#">io.k8s.api.core.v1.EndpointPort</a> objects	Port numbers available on the related IP addresses.

**Table 5-3755** io.k8s.api.core.v1.EndpointAddress

Parameter	Mandatory	Type	Description
hostname	No	String	The Hostname of this endpoint
ip	Yes	String	The IP of this endpoint. May not be loopback (127.0.0.0/8), link-local (169.254.0.0/16), or link-local multicast ((224.0.0.0/24). IPv6 is also accepted but not fully supported on all platforms. Also, certain kubernetes components, like kube-proxy, are not IPv6 ready.
nodeName	No	String	Optional: Node hosting this endpoint. This can be used to determine endpoints local to a node.
targetRef	No	<a href="#">io.k8s.api.core.v1.ObjectReference</a> object	Reference to object providing the endpoint.

**Table 5-3756** io.k8s.api.core.v1.ObjectReference

Parameter	Mandatory	Type	Description
apiVersion	No	String	API version of the referent.

Parameter	Mandatory	Type	Description
fieldPath	No	String	If referring to a piece of an object instead of an entire object, this string should contain a valid JSON/Go field access statement, such as <code>desiredState.manifest.containers[2]</code> . For example, if the object reference is to a container within a pod, this would take on a value like: <code>"spec.containers{name}"</code> (where "name" refers to the name of the container that triggered the event) or if no container name is specified <code>"spec.containers[2]"</code> (container with index 2 in this pod). This syntax is chosen only to have some well-defined way of referencing a part of an object.
kind	No	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
namespace	No	String	Namespace of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/">https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/</a>
resourceVersion	No	String	Specific resourceVersion to which this reference is made, if any. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>

Parameter	Mandatory	Type	Description
uid	No	String	UID of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids</a>

**Table 5-3757** io.k8s.api.core.v1.EndpointPort

Parameter	Mandatory	Type	Description
appProtocol	No	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Un-prefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as <code>mycompany.com/my-custom-protocol</code> . This is a beta field that is guarded by the <code>ServiceAppProtocol</code> feature gate and enabled by default.
name	No	String	The name of this port. This must match the 'name' field in the corresponding <code>ServicePort</code> . Must be a <code>DNS_LABEL</code> . Optional only if one port is defined.
port	Yes	Integer	The port number of the endpoint.
protocol	No	String	The IP protocol for this port. Must be UDP, TCP, or SCTP. Default is TCP.

## Response Parameters

Status code: 200

**Table 5-3758** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
subsets	Array of <a href="#">io.k8s.api.core.v1.EndpointSubset</a> objects	The set of all endpoints is the union of all subsets. Addresses are placed into subsets according to the IPs they share. A single address with multiple ports, some of which are ready and some of which are not (because they come from different containers) will result in the address being displayed in different subsets for the different ports. No address will appear in both Addresses and NotReadyAddresses in the same subset. Sets of addresses and ports that comprise a service.

**Table 5-3759** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.



Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3760** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3761** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3762** io.k8s.api.core.v1.EndpointSubset

Parameter	Type	Description
addresses	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports that are marked as ready. These endpoints should be considered safe for load balancers and clients to utilize.

Parameter	Type	Description
notReadyAddresses	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports but are not currently marked as ready because they have not yet finished starting, have recently failed a readiness check, or have recently failed a liveness check.
ports	Array of <a href="#">io.k8s.api.core.v1.EndpointPort</a> objects	Port numbers available on the related IP addresses.

**Table 5-3763** io.k8s.api.core.v1.EndpointAddress

Parameter	Type	Description
hostname	String	The Hostname of this endpoint
ip	String	The IP of this endpoint. May not be loopback (127.0.0.0/8), link-local (169.254.0.0/16), or link-local multicast ((224.0.0.0/24). IPv6 is also accepted but not fully supported on all platforms. Also, certain kubernetes components, like kube-proxy, are not IPv6 ready.
nodeName	String	Optional: Node hosting this endpoint. This can be used to determine endpoints local to a node.
targetRef	<a href="#">io.k8s.api.core.v1.ObjectReference</a> object	Reference to object providing the endpoint.

**Table 5-3764** io.k8s.api.core.v1.ObjectReference

Parameter	Type	Description
apiVersion	String	API version of the referent.

Parameter	Type	Description
fieldPath	String	If referring to a piece of an object instead of an entire object, this string should contain a valid JSON/Go field access statement, such as <code>desiredState.manifest.containers[2]</code> . For example, if the object reference is to a container within a pod, this would take on a value like: <code>"spec.containers{name}"</code> (where "name" refers to the name of the container that triggered the event) or if no container name is specified <code>"spec.containers[2]"</code> (container with index 2 in this pod). This syntax is chosen only to have some well-defined way of referencing a part of an object.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
namespace	String	Namespace of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/">https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/</a>
resourceVersion	String	Specific resourceVersion to which this reference is made, if any. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
uid	String	UID of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids</a>

**Table 5-3765** io.k8s.api.core.v1.EndpointPort

Parameter	Type	Description
appProtocol	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Unprefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as <code>mycompany.com/my-custom-protocol</code> . This is a beta field that is guarded by the <code>ServiceAppProtocol</code> feature gate and enabled by default.

Parameter	Type	Description
name	String	The name of this port. This must match the 'name' field in the corresponding ServicePort. Must be a DNS_LABEL. Optional only if one port is defined.
port	Integer	The port number of the endpoint.
protocol	String	The IP protocol for this port. Must be UDP, TCP, or SCTP. Default is TCP.

**Status code: 201**

**Table 5-3766** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
subsets	Array of <a href="#">io.k8s.api.core.v1.EndpointSubset</a> objects	The set of all endpoints is the union of all subsets. Addresses are placed into subsets according to the IPs they share. A single address with multiple ports, some of which are ready and some of which are not (because they come from different containers) will result in the address being displayed in different subsets for the different ports. No address will appear in both Addresses and NotReadyAddresses in the same subset. Sets of addresses and ports that comprise a service.



**Table 5-3767** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed.</p> <p>Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3768** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3769** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3770** io.k8s.api.core.v1.EndpointSubset

Parameter	Type	Description
addresses	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports that are marked as ready. These endpoints should be considered safe for load balancers and clients to utilize.

Parameter	Type	Description
notReadyAddresses	Array of <a href="#">io.k8s.api.core.v1.EndpointAddress</a> objects	IP addresses which offer the related ports but are not currently marked as ready because they have not yet finished starting, have recently failed a readiness check, or have recently failed a liveness check.
ports	Array of <a href="#">io.k8s.api.core.v1.EndpointPort</a> objects	Port numbers available on the related IP addresses.

**Table 5-3771** io.k8s.api.core.v1.EndpointAddress

Parameter	Type	Description
hostname	String	The Hostname of this endpoint
ip	String	The IP of this endpoint. May not be loopback (127.0.0.0/8), link-local (169.254.0.0/16), or link-local multicast ((224.0.0.0/24). IPv6 is also accepted but not fully supported on all platforms. Also, certain kubernetes components, like kube-proxy, are not IPv6 ready.
nodeName	String	Optional: Node hosting this endpoint. This can be used to determine endpoints local to a node.
targetRef	<a href="#">io.k8s.api.core.v1.ObjectReference</a> object	Reference to object providing the endpoint.

**Table 5-3772** io.k8s.api.core.v1.ObjectReference

Parameter	Type	Description
apiVersion	String	API version of the referent.

Parameter	Type	Description
fieldPath	String	If referring to a piece of an object instead of an entire object, this string should contain a valid JSON/Go field access statement, such as <code>desiredState.manifest.containers[2]</code> . For example, if the object reference is to a container within a pod, this would take on a value like: <code>"spec.containers{name}"</code> (where "name" refers to the name of the container that triggered the event) or if no container name is specified <code>"spec.containers[2]"</code> (container with index 2 in this pod). This syntax is chosen only to have some well-defined way of referencing a part of an object.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
namespace	String	Namespace of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/">https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/</a>
resourceVersion	String	Specific resourceVersion to which this reference is made, if any. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
uid	String	UID of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids</a>

**Table 5-3773** io.k8s.api.core.v1.EndpointPort

Parameter	Type	Description
appProtocol	String	The application protocol for this port. This field follows standard Kubernetes label syntax. Unprefixed names are reserved for IANA standard service names (as per RFC-6335 and <a href="http://www.iana.org/assignments/service-names">http://www.iana.org/assignments/service-names</a> ). Non-standard protocols should use prefixed names such as <code>mycompany.com/my-custom-protocol</code> . This is a beta field that is guarded by the <code>ServiceAppProtocol</code> feature gate and enabled by default.



Parameter	Type	Description
name	String	The name of this port. This must match the 'name' field in the corresponding ServicePort. Must be a DNS_LABEL. Optional only if one port is defined.
port	Integer	The port number of the endpoint.
protocol	String	The IP protocol for this port. Must be UDP, TCP, or SCTP. Default is TCP.

## Example Requests

### Replacing an endpoint

```
{
  "apiVersion": "v1",
  "kind": "Endpoints",
  "metadata": {
    "annotations": {
      "new-key": "new-value",
      "test-key": "test-value"
    },
    "creationTimestamp": "2023-03-28T13:55:52Z",
    "name": "test-endpoint",
    "namespace": "test-namespace",
    "resourceVersion": "263561274",
    "selfLink": "/api/v1/namespaces/test-namespace/endpoints/test-endpoint",
    "uid": "3907aa64-c3f3-4de0-b938-9d23e8d12f94"
  },
  "subsets": [ {
    "addresses": [ {
      "ip": "192.168.226.222",
      "targetRef": {
        "kind": "Pod",
        "name": "nginx-686bccd6f-ccsqb",
        "namespace": "test-namespace",
        "resourceVersion": "262055491",
        "uid": "ae417968-4f69-40da-9228-2434671e9c66"
      }
    }
  ]
  },
  "ports": [ {
    "name": "service0",
    "port": 80,
    "protocol": "TCP"
  }
  ]
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "Endpoints",
  "metadata": {
    "annotations": {
      "new-key": "new-value",
```

```

    "test-key" : "test-value"
  },
  "creationTimestamp" : "2023-03-28T13:55:52Z",
  "name" : "test-endpoint",
  "namespace" : "test-namespace",
  "resourceVersion" : "263576210",
  "selfLink" : "/api/v1/namespaces/test-namespace/endpoints/test-endpoint",
  "uid" : "3907aa64-c3f3-4de0-b938-9d23e8d12f94"
},
"subsets" : [ {
  "addresses" : [ {
    "ip" : "192.168.226.222",
    "targetRef" : {
      "kind" : "Pod",
      "name" : "nginx-686bccd6f-ccsqb",
      "namespace" : "test-namespace",
      "resourceVersion" : "262055491",
      "uid" : "ae417968-4f69-40da-9228-2434671e9c66"
    }
  }
  ],
  "ports" : [ {
    "name" : "service0",
    "port" : 80,
    "protocol" : "TCP"
  }
  ]
}
]
}
}

```

## Status Codes

Status Code	Description
200	OK
201	Created
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.13 ResourceQuota

### 5.13.1 Querying resourcequotas in a Namespace

#### Function

This API is used to query the resourcequotas in a specified namespace.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /api/v1/namespaces/{namespace}/resourcequotas

**Table 5-3774** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3775** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

Table 5-3776 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

Table 5-3777 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.core.v1.ResourceQuota</a> objects	Items is a list of ResourceQuota objects. More info: <a href="https://kubernetes.io/docs/concepts/policy/resource-quotas/">https://kubernetes.io/docs/concepts/policy/resource-quotas/</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

**Table 5-3778** io.k8s.api.core.v1.ResourceQuota

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.ResourceQuotaSpec</a> object	Spec defines the desired quota. <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.ResourceQuotaStatus</a> object	Status defines the actual enforced quota and its current usage. <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3779** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>



Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-3780** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3781** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3782** io.k8s.api.core.v1.ResourceQuotaSpec

Parameter	Type	Description
hard	Map<String,String>	hard is the set of desired hard limits for each named resource. More info: <a href="https://kubernetes.io/docs/concepts/policy/resource-quotas/">https://kubernetes.io/docs/concepts/policy/resource-quotas/</a>

Parameter	Type	Description
scopeSelector	<a href="#">io.k8s.api.core.v1.ScopeSelector</a> object	scopeSelector is also a collection of filters like scopes that must match each object tracked by a quota but expressed using ScopeSelectorOperator in combination with possible values. For a resource to match, both scopes AND scopeSelector (if specified in spec), must be matched.
scopes	Array of strings	A collection of filters that must match each object tracked by a quota. If not specified, the quota matches all objects.

**Table 5-3783** io.k8s.api.core.v1.ScopeSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.ScopedResourceSelectorRequirement</a> objects	A list of scope selector requirements by scope of the resources.

**Table 5-3784** io.k8s.api.core.v1.ScopedResourceSelectorRequirement

Parameter	Type	Description
operator	String	Represents a scope's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist.
scopeName	String	The name of the scope that the selector applies to.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-3785** io.k8s.api.core.v1.ResourceQuotaStatus

Parameter	Type	Description
hard	Map<String,String>	Hard is the set of enforced hard limits for each named resource. More info: <a href="https://kubernetes.io/docs/concepts/policy/resource-quotas/">https://kubernetes.io/docs/concepts/policy/resource-quotas/</a>
used	Map<String,String>	Used is the current observed total usage of the resource in the namespace.

**Table 5-3786** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.



Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "v1",
  "items": [ {
    "metadata": {
      "creationTimestamp": "2022-09-07T06:07:58Z",
      "name": "compute-resources",
      "namespace": "namespace-test",
      "resourceVersion": "42717140",
      "selfLink": "/api/v1/namespaces/namespace-test/resourcequotas/compute-resources",
      "uid": "df6e7f78-717d-48e2-bf41-afab0ba0a3de"
    },
    "spec": {
      "hard": {
        "configmaps": "480k",
        "count/cronjobs.batch": "960",
        "count/deployments.apps": "480",
        "count/ingresses.extensions": "480",
        "count/jobs.batch": "960",
        "count/networks.networking.cci.io": "72",
        "count/statefulsets.apps": "480",
        "limits.cpu": "100k",
        "limits.memory": "800000Gi",
        "persistentvolumeclaims": "960",
        "pods": "480k",
        "requests.nvidia.com/gpu-tesla-p4": "256",
        "requests.nvidia.com/gpu-tesla-p100-16GB": "256",
        "requests.nvidia.com/gpu-tesla-v100-16GB": "256",
        "requests.nvidia.com/gpu-tesla-v100-32GB": "256",
        "secrets": "480k",
        "services": "9600"
      }
    }
  }
]
```

```

    }
  },
  "status": {
    "hard": {
      "configmaps": "480k",
      "count/cronjobs.batch": "960",
      "count/deployments.apps": "480",
      "count/ingresses.extensions": "480",
      "count/jobs.batch": "960",
      "count/networks.networking.cci.io": "72",
      "count/statefulsets.apps": "480",
      "limits.cpu": "100k",
      "limits.memory": "800000Gi",
      "persistentvolumeclaims": "960",
      "pods": "480k",
      "requests.nvidia.com/gpu-tesla-p4": "256",
      "requests.nvidia.com/gpu-tesla-p100-16GB": "256",
      "requests.nvidia.com/gpu-tesla-v100-16GB": "256",
      "requests.nvidia.com/gpu-tesla-v100-32GB": "256",
      "secrets": "480k",
      "services": "9600"
    },
    "used": {
      "configmaps": "0",
      "count/cronjobs.batch": "0",
      "count/deployments.apps": "0",
      "count/ingresses.extensions": "0",
      "count/jobs.batch": "0",
      "count/networks.networking.cci.io": "1",
      "count/statefulsets.apps": "0",
      "limits.cpu": "0",
      "limits.memory": "0",
      "persistentvolumeclaims": "0",
      "pods": "0",
      "requests.nvidia.com/gpu-tesla-p4": "0",
      "requests.nvidia.com/gpu-tesla-p100-16GB": "0",
      "requests.nvidia.com/gpu-tesla-v100-16GB": "0",
      "requests.nvidia.com/gpu-tesla-v100-32GB": "0",
      "secrets": "2",
      "services": "1"
    }
  }
},
"kind": "ResourceQuotaList",
"metadata": {
  "resourceVersion": "42732540",
  "selfLink": "/api/v1/namespaces/namespace-test/resourcequotas"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed

Status Code	Description
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.13.2 Querying a resourcequota

### Function

This API is used to query a specified resourcequota.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /api/v1/namespaces/{namespace}/resourcequotas/{name}

**Table 5-3787** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the ResourceQuota
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3788** Query Parameters

Parameter	Mandatory	Type	Description
exact	No	Boolean	Should the export be exact. Exact export maintains cluster-specific fields like 'Namespace'. Deprecated. Planned for removal in 1.18.

Parameter	Mandatory	Type	Description
export	No	Boolean	Should this value be exported. Export strips fields that a user can not specify. Deprecated. Planned for removal in 1.18.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

Table 5-3789 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

Table 5-3790 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.ResourceQuotaSpec</a> object	Spec defines the desired quota. <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.core.v1.ResourceQuotaStatus</a> object	Status defines the actual enforced quota and its current usage. <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3791** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.



Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3792** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3793** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3794** io.k8s.api.core.v1.ResourceQuotaSpec

Parameter	Type	Description
hard	Map<String,String>	hard is the set of desired hard limits for each named resource. More info: <a href="https://kubernetes.io/docs/concepts/policy/resource-quotas/">https://kubernetes.io/docs/concepts/policy/resource-quotas/</a>

Parameter	Type	Description
scopeSelector	<a href="#">io.k8s.api.core.v1.ScopeSelector</a> object	scopeSelector is also a collection of filters like scopes that must match each object tracked by a quota but expressed using ScopeSelectorOperator in combination with possible values. For a resource to match, both scopes AND scopeSelector (if specified in spec), must be matched.
scopes	Array of strings	A collection of filters that must match each object tracked by a quota. If not specified, the quota matches all objects.

**Table 5-3795** io.k8s.api.core.v1.ScopeSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.ScopedResourceSelectorRequirement</a> objects	A list of scope selector requirements by scope of the resources.

**Table 5-3796** io.k8s.api.core.v1.ScopedResourceSelectorRequirement

Parameter	Type	Description
operator	String	Represents a scope's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist.
scopeName	String	The name of the scope that the selector applies to.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-3797** io.k8s.api.core.v1.ResourceQuotaStatus

Parameter	Type	Description
hard	Map<String,String>	Hard is the set of enforced hard limits for each named resource. More info: <a href="https://kubernetes.io/docs/concepts/policy/resource-quotas/">https://kubernetes.io/docs/concepts/policy/resource-quotas/</a>
used	Map<String,String>	Used is the current observed total usage of the resource in the namespace.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "ResourceQuota",
  "metadata": {
    "creationTimestamp": "2022-09-07T06:07:58Z",
    "name": "compute-resources",
    "namespace": "namespace-test",
    "resourceVersion": "42717140",
    "selfLink": "/api/v1/namespaces/namespace-test/resourcequotas/compute-resources",
    "uid": "df6e7f78-717d-48e2-bf41-afab0ba0a3de"
  },
  "spec": {
    "hard": {
      "configmaps": "480k",
      "count/cronjobs.batch": "960",
      "count/deployments.apps": "480",
      "count/ingresses.extensions": "480",
      "count/jobs.batch": "960",
      "count/networks.networking.cci.io": "72",
      "count/statefulsets.apps": "480",
      "limits.cpu": "100k",
      "limits.memory": "800000Gi",
      "persistentvolumeclaims": "960",
      "pods": "480k",
      "requests.nvidia.com/gpu-tesla-p4": "256",
      "requests.nvidia.com/gpu-tesla-p100-16GB": "256",
      "requests.nvidia.com/gpu-tesla-v100-16GB": "256",
      "requests.nvidia.com/gpu-tesla-v100-32GB": "256",
      "secrets": "480k",
      "services": "9600"
    }
  },
  "status": {
    "hard": {
      "configmaps": "480k",
      "count/cronjobs.batch": "960",
      "count/deployments.apps": "480",
      "count/ingresses.extensions": "480",
      "count/jobs.batch": "960",
      "count/networks.networking.cci.io": "72",
      "count/statefulsets.apps": "480",

```

```
"limits.cpu" : "100k",
"limits.memory" : "800000Gi",
"persistentvolumeclaims" : "960",
"pods" : "480k",
"requests.nvidia.com/gpu-tesla-p4" : "256",
"requests.nvidia.com/gpu-tesla-p100-16GB" : "256",
"requests.nvidia.com/gpu-tesla-v100-16GB" : "256",
"requests.nvidia.com/gpu-tesla-v100-32GB" : "256",
"secrets" : "480k",
"services" : "9600"
},
"used" : {
  "configmaps" : "0",
  "count/cronjobs.batch" : "0",
  "count/deployments.apps" : "0",
  "count/ingresses.extensions" : "0",
  "count/jobs.batch" : "0",
  "count/networks.networking.cci.io" : "1",
  "count/statefulsets.apps" : "0",
  "limits.cpu" : "0",
  "limits.memory" : "0",
  "persistentvolumeclaims" : "0",
  "pods" : "0",
  "requests.nvidia.com/gpu-tesla-p4" : "0",
  "requests.nvidia.com/gpu-tesla-p100-16GB" : "0",
  "requests.nvidia.com/gpu-tesla-v100-16GB" : "0",
  "requests.nvidia.com/gpu-tesla-v100-32GB" : "0",
  "secrets" : "2",
  "services" : "1"
}
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable

Status Code	Description
504	ServerTimeout

## 5.14 CronJob

### 5.14.1 Querying CronJobs in All Namespaces

#### Function

This API is used to query the details about all CronJobs in all namespaces.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /apis/batch/v1beta1/cronjobs

**Table 5-3798** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>
pretty	No	String	If 'true', then the output is pretty printed.



Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.

## Request Parameters

**Table 5-3799** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-3800** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.batch.v1beta1.CronJob</a> objects	items is the list of CronJobs.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

**Table 5-3801** io.k8s.api.batch.v1beta1.CronJob

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.batch.v1beta1.CronJobSpec</a> object	Specification of the desired behavior of a cron job, including the schedule. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.batch.v1beta1.CronJobStatus</a> object	Current status of a cron job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3802** io.k8s.api.batch.v1beta1.CronJobSpec

Parameter	Type	Description
concurrencyPolicy	String	Specifies how to treat concurrent executions of a Job. Valid values are: - "Allow" (default): allows CronJobs to run concurrently; - "Forbid": forbids concurrent runs, skipping next run if previous run hasn't finished yet; - "Replace": cancels currently running job and replaces it with a new one
failedJobsHistoryLimit	Integer	The number of failed finished jobs to retain. This is a pointer to distinguish between explicit zero and not specified. Defaults to 1.
jobTemplate	<a href="#">io.k8s.api.batch.v1beta1.JobTemplateSpec</a> object	Specifies the job that will be created when executing a CronJob.
schedule	String	The schedule in Cron format, see <a href="https://en.wikipedia.org/wiki/Cron">https://en.wikipedia.org/wiki/Cron</a> .
startingDeadlineSeconds	Long	Optional deadline in seconds for starting the job if it misses scheduled time for any reason. Missed jobs executions will be counted as failed ones.
successfulJobsHistoryLimit	Integer	The number of successful finished jobs to retain. This is a pointer to distinguish between explicit zero and not specified. Defaults to 3.

Parameter	Type	Description
suspend	Boolean	This flag tells the controller to suspend subsequent executions, it does not apply to already started executions. Defaults to false.

**Table 5-3803** io.k8s.api.batch.v1beta1.JobTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata of the jobs created from this template. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.batch.v1.JobSpec</a> object	Specification of the desired behavior of the job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3804** io.k8s.api.batch.v1.JobSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Specifies the duration in seconds relative to the startTime that the job may be active before the system tries to terminate it; value must be positive integer
backoffLimit	Integer	Specifies the number of retries before marking this job failed. Defaults to 6
completions	Integer	Specifies the desired number of successfully finished pods the job should be run with. Setting to nil means that the success of any pod signals the success of all pods, and allows parallelism to have any positive value. Setting to 1 means that parallelism is limited to 1 and the success of that pod signals the success of the job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>

Parameter	Type	Description
manualSelector or	Boolean	manualSelector controls generation of pod labels and pod selectors. Leave <i>manualSelector</i> unset unless you are certain what you are doing. When false or unset, the system pick labels unique to this job and appends those labels to the pod template. When true, the user is responsible for picking unique labels and specifying the selector. Failure to pick a unique label may cause this and other jobs to not function correctly. However, You may see <i>manualSelector=true</i> in jobs that were created with the old <i>extensions/v1beta1</i> API. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector</a>
parallelism	Integer	Specifies the maximum desired number of pods the job should run at any given time. The actual number of pods running in steady state will be less than this number when $((.spec.completions - .status.successful) < .spec.parallelism)$ , i.e. when the work left to do is less than max parallelism. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over pods that should match the pod count. Normally, the system sets this field for you. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Describes the pod that will be created when executing a job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
ttlSecondsAfterFinished	Integer	ttlSecondsAfterFinished limits the lifetime of a Job that has finished execution (either Complete or Failed). If this field is set, ttlSecondsAfterFinished after the Job finishes, it is eligible to be automatically deleted. When the Job is being deleted, its lifecycle guarantees (e.g. finalizers) will be honored. If this field is unset, the Job won't be automatically deleted. If this field is set to zero, the Job becomes eligible to be deleted immediately after it finishes. This field is alpha-level and is only honored by servers that enable the TTLAfterFinished feature.

**Table 5-3805** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3806** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.

Parameter	Type	Description
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>

Parameter	Type	Description
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	nodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>



Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/objects/PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-3807** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-3808** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-3809** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.

Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-3810** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-3811** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-3812** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-3813** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-3814** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-3815** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-3816** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-3817** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-3818** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option



**Table 5-3819** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-3820** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-3821** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-3822** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-3823** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".



Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-3824** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-3825** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-3826** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-3827** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-3828** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-3829** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-3830** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-3831** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-3832** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-3833** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-3834** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-3835** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-3836** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-3837** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-3838** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-3839** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-3840** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-3841** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.



Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-3842** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-3843** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-3844** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-3845** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-3846** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-3847** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-3848** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-3849** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-3850** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-3851** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-3852** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>



Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-3853** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-3854** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-3855** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-3856** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-3857** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-3858** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-3859** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-3860** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-3861** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-3862** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-3863** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.



**Table 5-3864** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3865** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3866** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3867** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-3868** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-3869** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-3870** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-3871** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.



Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-3872** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-3873** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-3874** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-3875** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-3876** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-3877** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-3878** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-3879** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-3880** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-3881** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-3882** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-3883** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-3884** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-3885** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-3886** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-3887** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-3888** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file



**Table 5-3889** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-3890** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-3891** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-3892** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-3893** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-3894** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-3895** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-3896** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-3897** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-3898** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-3899** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-3900** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-3901** io.k8s.api.batch.v1beta1.CronJobStatus

Parameter	Type	Description
active	Array of <a href="#">io.k8s.api.core.v1.ObjectReference</a> objects	A list of pointers to currently running jobs.
lastScheduleTime	String	Information when was the last time the job was successfully scheduled.

**Table 5-3902** io.k8s.api.core.v1.ObjectReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
fieldPath	String	If referring to a piece of an object instead of an entire object, this string should contain a valid JSON/Go field access statement, such as desiredState.manifest.containers[2]. For example, if the object reference is to a container within a pod, this would take on a value like: "spec.containers{name}" (where "name" refers to the name of the container that triggered the event) or if no container name is specified "spec.containers[2]" (container with index 2 in this pod). This syntax is chosen only to have some well-defined way of referencing a part of an object.

Parameter	Type	Description
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
namespace	String	Namespace of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/">https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/</a>
resourceVersion	String	Specific resourceVersion to which this reference is made, if any. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
uid	String	UID of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids</a>

**Table 5-3903** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.



Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "batch/v1beta1",
  "items": [{
    "metadata": {
      "annotations": {
        "description": ""
      }
    },
    "creationTimestamp": "2022-09-06T08:56:37Z",
```

```
"name" : "cronjob-test",
"namespace" : "namespace-test",
"resourceVersion" : "615089077",
"selfLink" : "/apis/batch/v1beta1/namespaces/namespace-test/cronjobs/cronjob-test",
"uid" : "808543b6-696f-49ef-a8c9-30ab6b66c979"
},
"spec" : {
  "concurrencyPolicy" : "Forbid",
  "failedJobsHistoryLimit" : 1,
  "jobTemplate" : {
    "metadata" : {
      "creationTimestamp" : null
    },
    "spec" : {
      "template" : {
        "metadata" : {
          "annotations" : {
            "cri.cci.io/container-type" : "secure-container",
            "log.stdoutcollection.kubernetes.io" : "{\"collectionContainers\" : [\"container-0\"]}"
          },
          "creationTimestamp" : null
        },
        "spec" : {
          "containers" : [ {
            "image" : "redis",
            "imagePullPolicy" : "IfNotPresent",
            "lifecycle" : { },
            "name" : "container-0",
            "resources" : {
              "limits" : {
                "cpu" : "500m",
                "memory" : "1Gi"
              },
              "requests" : {
                "cpu" : "500m",
                "memory" : "1Gi"
              }
            },
            "terminationMessagePath" : "/dev/termination-log",
            "terminationMessagePolicy" : "File"
          } ],
          "dnsPolicy" : "ClusterFirst",
          "imagePullSecrets" : [ {
            "name" : "imagepull-secret"
          } ],
          "restartPolicy" : "Never",
          "schedulerName" : "default-scheduler",
          "securityContext" : { },
          "terminationGracePeriodSeconds" : 30
        }
      }
    },
    "schedule" : "0 */1 * * *",
    "successfulJobsHistoryLimit" : 3,
    "suspend" : false
  },
  "status" : { }
}],
"kind" : "CronJobList",
"metadata" : {
  "resourceVersion" : "41656236",
  "selfLink" : ""
}
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.15 API groups

### 5.15.1 Querying API Versions

#### Function

get available API versions

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /api

## Request Parameters

**Table 5-3904** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-3905** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
serverAddressByClientCIDRs	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR</a> objects	a map of client CIDR to server address that is serving this group. This is to help clients reach servers in the most network-efficient way possible. Clients can use the appropriate server address as per the CIDR that they match. In case of multiple matches, clients should use the longest matching CIDR. The server returns only those CIDRs that it thinks that the client can match. For example: the master will return an internal IP CIDR only, if the client reaches the server using an internal IP. Server looks at X-Forwarded-For header or X-Real-Ip header or request.RemoteAddr (in that order) to get the client IP.

Parameter	Type	Description
versions	Array of strings	versions are the api versions that are available.

**Table 5-3906** io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR

Parameter	Type	Description
clientCIDR	String	The CIDR with which clients can match their IP to figure out the server address that they should use.
serverAddress	String	Address of this server, suitable for a client that matches the above CIDR. This can be a hostname, hostname:port, IP or IP:port.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "kind": "APIVersions",
  "serverAddressByClientCIDRs": [ {
    "clientCIDR": "0.0.0.0/0",
    "serverAddress": "https://cci.cn-east-3.myhuaweicloud.com"
  } ],
  "versions": [ "v1" ]
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable

Status Code	Description
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.15.2 Querying All APIs of v1

### Function

get available resources

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /api/v1

### Request Parameters

**Table 5-3907** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

### Response Parameters

Status code: 200

**Table 5-3908** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
groupVersion	String	groupVersion is the group and version this APIResourceList is for.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
resources	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.APIResource</a> objects	resources contains the name of the resources and if they are namespaced.

**Table 5-3909** io.k8s.apimachinery.pkg.apis.meta.v1.APIResource

Parameter	Type	Description
categories	Array of strings	categories is a list of the grouped resources this resource belongs to (e.g. 'all')
group	String	group is the preferred group of the resource. Empty implies the group of the containing resource list. For subresources, this may have a different value, for example: Scale".
kind	String	kind is the kind for the resource (e.g. 'Foo' is the kind for a resource 'foo')
name	String	name is the plural name of the resource.
namespaced	Boolean	namespaced indicates if a resource is namespaced or not.
shortNames	Array of strings	shortNames is a list of suggested short names of the resource.

Parameter	Type	Description
singularName	String	singularName is the singular name of the resource. This allows clients to handle plural and singular opaquely. The singularName is more correct for reporting status on a single item and both singular and plural are allowed from the kubectl CLI interface.
storageVersionHash	String	The hash value of the storage version, the version this resource is converted to when written to the data store. Value must be treated as opaque by clients. Only equality comparison on the value is valid. This is an alpha feature and may change or be removed in the future. The field is populated by the apiserver only if the StorageVersionHash feature gate is enabled. This field will remain optional even if it graduates.
verbs	Array of strings	verbs is a list of supported kube verbs (this includes get, list, watch, create, update, patch, delete, deletecollection, and proxy)
version	String	version is the preferred version of the resource. Empty implies the version of the containing resource list For subresources, this may have a different value, for example: v1 (while inside a v1beta1 version of the core resource's group)".

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "groupVersion": "v1",
  "kind": "APIResourceList",
  "resources": [ {
    "kind": "ConfigMap",
    "name": "configmaps",
    "namespaced": true,
    "shortNames": [ "cm" ],
    "singularName": "",
    "verbs": [ "create", "delete", "deletecollection", "get", "list", "patch", "update", "watch" ]
  }, {
    "kind": "Endpoints",
    "name": "endpoints",
    "namespaced": true,
    "shortNames": [ "ep" ],
    "singularName": "",
    "verbs": [ "create", "delete", "deletecollection", "get", "list", "patch", "update", "watch" ]
  }
]
```



```
}, {
  "kind": "Event",
  "name": "events",
  "namespaced": true,
  "shortNames": [ "ev" ],
  "singularName": "",
  "verbs": [ "create", "delete", "deletecollection", "get", "list", "patch", "update", "watch" ]
}, {
  "kind": "Namespace",
  "name": "namespaces",
  "namespaced": false,
  "shortNames": [ "ns" ],
  "singularName": "",
  "verbs": [ "create", "delete", "get", "list", "patch", "update", "watch" ]
}, {
  "kind": "PersistentVolumeClaim",
  "name": "persistentvolumeclaims",
  "namespaced": true,
  "shortNames": [ "pvc" ],
  "singularName": "",
  "verbs": [ "create", "delete", "deletecollection", "get", "list", "patch", "update", "watch" ]
}, {
  "categories": [ "all" ],
  "kind": "Pod",
  "name": "pods",
  "namespaced": true,
  "shortNames": [ "po" ],
  "singularName": "",
  "verbs": [ "create", "delete", "deletecollection", "get", "list", "patch", "update", "watch" ]
}, {
  "kind": "Pod",
  "name": "pods/exec",
  "namespaced": true,
  "singularName": "",
  "verbs": [ ]
}, {
  "kind": "Pod",
  "name": "pods/log",
  "namespaced": true,
  "singularName": "",
  "verbs": [ "get" ]
}, {
  "kind": "Pod",
  "name": "pods/status",
  "namespaced": true,
  "singularName": "",
  "verbs": [ "get", "patch", "update" ]
}, {
  "kind": "ResourceQuota",
  "name": "resourcequotas",
  "namespaced": true,
  "shortNames": [ "quota" ],
  "singularName": "",
  "verbs": [ "create", "delete", "deletecollection", "get", "list", "patch", "update", "watch" ]
}, {
  "kind": "Secret",
  "name": "secrets",
  "namespaced": true,
  "singularName": "",
  "verbs": [ "create", "delete", "deletecollection", "get", "list", "patch", "update", "watch" ]
}, {
  "categories": [ "all" ],
  "kind": "Service",
  "name": "services",
  "namespaced": true,
  "shortNames": [ "svc" ],
  "singularName": "",
  "verbs": [ "create", "delete", "get", "list", "patch", "update", "watch" ]
}, {
```

```
"kind" : "Service",  
"name" : "services/status",  
"namespaced" : true,  
"singularName" : "",  
"verbs" : [ "get", "patch", "update" ]  
}]  
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

### 5.15.3 Querying an APIGroupList

#### Function

get available API versions

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /apis

## Request Parameters

Table 5-3910 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

Table 5-3911 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
groups	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.APIGroup</a> objects	groups is a list of APIGroup.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

**Table 5-3912** io.k8s.apimachinery.pkg.apis.meta.v1.APIGroup

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	name is the name of the group.
preferredVersion	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery</a> object	preferredVersion is the version preferred by the API server, which probably is the storage version.
serverAddressByClientCIDRs	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR</a> objects	a map of client CIDR to server address that is serving this group. This is to help clients reach servers in the most network-efficient way possible. Clients can use the appropriate server address as per the CIDR that they match. In case of multiple matches, clients should use the longest matching CIDR. The server returns only those CIDRs that it thinks that the client can match. For example: the master will return an internal IP CIDR only, if the client reaches the server using an internal IP. Server looks at X-Forwarded-For header or X-Real-IP header or request.RemoteAddr (in that order) to get the client IP.
versions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery</a> objects	versions are the versions supported in this group.

**Table 5-3913** io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery

Parameter	Type	Description
groupVersion	String	groupVersion specifies the API group and version in the form "group/version"
version	String	version specifies the version in the form of "version". This is to save the clients the trouble of splitting the GroupVersion.

**Table 5-3914** io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR

Parameter	Type	Description
clientCIDR	String	The CIDR with which clients can match their IP to figure out the server address that they should use.
serverAddress	String	Address of this server, suitable for a client that matches the above CIDR. This can be a hostname, hostname:port, IP or IP:port.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "groups": [ {
    "name": "extensions",
    "preferredVersion": {
      "groupVersion": "extensions/v1beta1",
      "version": "v1beta1"
    },
    "versions": [ {
      "groupVersion": "extensions/v1beta1",
      "version": "v1beta1"
    } ]
  }, {
    "name": "apps",
    "preferredVersion": {
      "groupVersion": "apps/v1",
      "version": "v1"
    },
    "versions": [ {
      "groupVersion": "apps/v1",
      "version": "v1"
    } ],
    "groupVersion": "apps/v1beta1",
    "version": "v1beta1"
  } ]
}
```

```
}, {
  "name": "batch",
  "preferredVersion": {
    "groupVersion": "batch/v1",
    "version": "v1"
  },
  "versions": [ {
    "groupVersion": "batch/v1",
    "version": "v1"
  } ],
  "groupVersion": "batch/v1beta1",
  "version": "v1beta1"
}], {
  "name": "rbac.authorization.k8s.io",
  "preferredVersion": {
    "groupVersion": "rbac.authorization.k8s.io/v1",
    "version": "v1"
  },
  "versions": [ {
    "groupVersion": "rbac.authorization.k8s.io/v1",
    "version": "v1"
  } ]
}, {
  "name": "networking.cci.io",
  "preferredVersion": {
    "groupVersion": "networking.cci.io/v1beta1",
    "version": "v1beta1"
  },
  "versions": [ {
    "groupVersion": "networking.cci.io/v1beta1",
    "version": "v1beta1"
  } ]
}, {
  "name": "image.cci.io",
  "preferredVersion": {
    "groupVersion": "image.cci.io/v1alpha1",
    "version": "v1alpha1"
  },
  "versions": [ {
    "groupVersion": "image.cci.io/v1alpha1",
    "version": "v1alpha1"
  } ]
}, {
  "name": "kubeflow.org",
  "preferredVersion": {
    "groupVersion": "kubeflow.org/v1",
    "version": "v1"
  },
  "versions": [ {
    "groupVersion": "kubeflow.org/v1",
    "version": "v1"
  } ]
}, {
  "name": "batch.volcano.sh",
  "preferredVersion": {
    "groupVersion": "batch.volcano.sh/v1alpha1",
    "version": "v1alpha1"
  },
  "versions": [ {
    "groupVersion": "batch.volcano.sh/v1alpha1",
    "version": "v1alpha1"
  } ]
}, {
  "name": "metrics.k8s.io",
  "preferredVersion": {
    "groupVersion": "metrics.k8s.io/v1beta1",
    "version": "v1beta1"
  },
  "versions": [ {
    "groupVersion": "metrics.k8s.io/v1beta1",
    "version": "v1beta1"
  } ]
}, {
```

```
"versions" : [ {  
  "groupVersion" : "metrics.k8s.io/v1beta1",  
  "version" : "v1beta1"  
} ]  
},  
"kind" : "APIGroupList"  
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.15.4 Querying APIGroup (/apis/apps)

### Function

This API is used to query an APIGroup (/apis/apps).

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/apps

## Request Parameters

**Table 5-3915** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-3916** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	name is the name of the group.
preferredVersion	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery</a> object	preferredVersion is the version preferred by the API server, which probably is the storage version.



Parameter	Type	Description
serverAddressByClientCIDRs	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR</a> objects	a map of client CIDR to server address that is serving this group. This is to help clients reach servers in the most network-efficient way possible. Clients can use the appropriate server address as per the CIDR that they match. In case of multiple matches, clients should use the longest matching CIDR. The server returns only those CIDRs that it thinks that the client can match. For example: the master will return an internal IP CIDR only, if the client reaches the server using an internal IP. Server looks at X-Forwarded-For header or X-Real-Ip header or request.RemoteAddr (in that order) to get the client IP.
versions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery</a> objects	versions are the versions supported in this group.

**Table 5-3917** io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery

Parameter	Type	Description
groupVersion	String	groupVersion specifies the API group and version in the form "group/version"
version	String	version specifies the version in the form of "version". This is to save the clients the trouble of splitting the GroupVersion.

**Table 5-3918** io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR

Parameter	Type	Description
clientCIDR	String	The CIDR with which clients can match their IP to figure out the server address that they should use.
serverAddress	String	Address of this server, suitable for a client that matches the above CIDR. This can be a hostname, hostname:port, IP or IP:port.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "APIGroup",
  "name": "apps",
  "preferredVersion": {
    "groupVersion": "apps/v1",
    "version": "v1"
  },
  "versions": [ {
    "groupVersion": "apps/v1",
    "version": "v1"
  } ]
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.15.5 Querying APIs of apps/v1

### Function

get available resources

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/apps/v1

### Request Parameters

**Table 5-3919** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

### Response Parameters

Status code: 200

**Table 5-3920** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
groupVersion	String	groupVersion is the group and version this APIResourceList is for.

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
resources	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.APIResource</a> objects	resources contains the name of the resources and if they are namespaced.

**Table 5-3921** io.k8s.apimachinery.pkg.apis.meta.v1.APIResource

Parameter	Type	Description
categories	Array of strings	categories is a list of the grouped resources this resource belongs to (e.g. 'all')
group	String	group is the preferred group of the resource. Empty implies the group of the containing resource list. For subresources, this may have a different value, for example: Scale".
kind	String	kind is the kind for the resource (e.g. 'Foo' is the kind for a resource 'foo')
name	String	name is the plural name of the resource.
namespaced	Boolean	namespaced indicates if a resource is namespaced or not.
shortNames	Array of strings	shortNames is a list of suggested short names of the resource.
singularName	String	singularName is the singular name of the resource. This allows clients to handle plural and singular opaquely. The singularName is more correct for reporting status on a single item and both singular and plural are allowed from the kubectl CLI interface.

Parameter	Type	Description
storageVersionHash	String	The hash value of the storage version, the version this resource is converted to when written to the data store. Value must be treated as opaque by clients. Only equality comparison on the value is valid. This is an alpha feature and may change or be removed in the future. The field is populated by the apiserver only if the StorageVersionHash feature gate is enabled. This field will remain optional even if it graduates.
verbs	Array of strings	verbs is a list of supported kube verbs (this includes get, list, watch, create, update, patch, delete, deletecollection, and proxy)
version	String	version is the preferred version of the resource. Empty implies the version of the containing resource list For subresources, this may have a different value, for example: v1 (while inside a v1beta1 version of the core resource's group)".

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "v1",
  "groupVersion": "apps/v1",
  "kind": "APIResourceList",
  "resources": [ {
    "categories": [ "all" ],
    "kind": "Deployment",
    "name": "deployments",
    "namespaced": true,
    "shortNames": [ "deploy" ],
    "singularName": "",
    "verbs": [ "create", "delete", "deletecollection", "get", "list", "patch", "update", "watch" ]
  }, {
    "group": "autoscaling",
    "kind": "Scale",
    "name": "deployments/scale",
    "namespaced": true,
    "singularName": "",
    "verbs": [ "get", "patch", "update" ],
    "version": "v1"
  }, {
    "kind": "Deployment",
    "name": "deployments/status",
    "namespaced": true,
    "singularName": "",
    "verbs": [ "get", "patch", "update" ]
  } ]
}
```

```
}, {
  "categories": [ "all" ],
  "kind": "ReplicaSet",
  "name": "replicasets",
  "namespaced": true,
  "shortNames": [ "rs" ],
  "singularName": "",
  "verbs": [ "create", "delete", "deletecollection", "get", "list", "patch", "update", "watch" ]
}, {
  "categories": [ "all" ],
  "kind": "StatefulSet",
  "name": "statefulsets",
  "namespaced": true,
  "shortNames": [ "sts" ],
  "singularName": "",
  "verbs": [ "create", "delete", "deletecollection", "get", "list", "patch", "update", "watch" ]
}, {
  "kind": "StatefulSet",
  "name": "statefulsets/status",
  "namespaced": true,
  "singularName": "",
  "verbs": [ "get", "patch", "update" ]
}]
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.15.6 Querying an APIGroup (/apis/batch)

### Function

This API is used to query an APIGroup (/apis/batch).

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/batch

### Request Parameters

Table 5-3922 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

### Response Parameters

Status code: 200

Table 5-3923 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
name	String	name is the name of the group.
preferredVersion	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery</a> object	preferredVersion is the version preferred by the API server, which probably is the storage version.
serverAddressByClientCIDRs	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR</a> objects	a map of client CIDR to server address that is serving this group. This is to help clients reach servers in the most network-efficient way possible. Clients can use the appropriate server address as per the CIDR that they match. In case of multiple matches, clients should use the longest matching CIDR. The server returns only those CIDRs that it thinks that the client can match. For example: the master will return an internal IP CIDR only, if the client reaches the server using an internal IP. Server looks at X-Forwarded-For header or X-Real-Ip header or request.RemoteAddr (in that order) to get the client IP.
versions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery</a> objects	versions are the versions supported in this group.

**Table 5-3924** io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery

Parameter	Type	Description
groupVersion	String	groupVersion specifies the API group and version in the form "group/version"
version	String	version specifies the version in the form of "version". This is to save the clients the trouble of splitting the GroupVersion.



**Table 5-3925** io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR

Parameter	Type	Description
clientCIDR	String	The CIDR with which clients can match their IP to figure out the server address that they should use.
serverAddress	String	Address of this server, suitable for a client that matches the above CIDR. This can be a hostname, hostname:port, IP or IP:port.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "APIGroup",
  "name": "batch",
  "preferredVersion": {
    "groupVersion": "batch/v1",
    "version": "v1"
  },
  "versions": [ {
    "groupVersion": "batch/v1",
    "version": "v1"
  }, {
    "groupVersion": "batch/v1beta1",
    "version": "v1beta1"
  }, {
    "groupVersion": "batch/v2alpha1",
    "version": "v2alpha1"
  } ]
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed

Status Code	Description
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.15.7 Querying an APIGroup (/apis/batch.volcano.sh)

### Function

This API is used to query an APIGroup (/apis/batch.volcano.sh).

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/batch.volcano.sh

### Request Parameters

Table 5-3926 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

### Response Parameters

Status code: 200

**Table 5-3927** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	name is the name of the group.
preferredVersion	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery</a> object	preferredVersion is the version preferred by the API server, which probably is the storage version.
serverAddressByClientCIDRs	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR</a> objects	a map of client CIDR to server address that is serving this group. This is to help clients reach servers in the most network-efficient way possible. Clients can use the appropriate server address as per the CIDR that they match. In case of multiple matches, clients should use the longest matching CIDR. The server returns only those CIDRs that it thinks that the client can match. For example: the master will return an internal IP CIDR only, if the client reaches the server using an internal IP. Server looks at X-Forwarded-For header or X-Real-IP header or request.RemoteAddr (in that order) to get the client IP.
versions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery</a> objects	versions are the versions supported in this group.

**Table 5-3928** io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery

Parameter	Type	Description
groupVersion	String	groupVersion specifies the API group and version in the form "group/version"
version	String	version specifies the version in the form of "version". This is to save the clients the trouble of splitting the GroupVersion.

**Table 5-3929** io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR

Parameter	Type	Description
clientCIDR	String	The CIDR with which clients can match their IP to figure out the server address that they should use.
serverAddress	String	Address of this server, suitable for a client that matches the above CIDR. This can be a hostname, hostname:port, IP or IP:port.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "APIGroup",
  "name": "batch.volcano.sh",
  "preferredVersion": {
    "groupVersion": "batch.volcano.sh/v1alpha1",
    "version": "v1alpha1"
  },
  "versions": [ {
    "groupVersion": "batch.volcano.sh/v1alpha1",
    "version": "v1alpha1"
  } ]
}
```

## Status Codes

Status Code	Description
200	OK

Status Code	Description
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.15.8 Querying All APIs of batch.volcano.sh/v1alpha1

### Function

This API is used to query all APIs of batch.volcano.sh/v1alpha1.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/batch.volcano.sh/v1alpha1

## Request Parameters

**Table 5-3930** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-3931** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
groupVersion	String	groupVersion is the group and version this APIResourceList is for.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
resources	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.APIResource</a> objects	resources contains the name of the resources and if they are namespaced.

**Table 5-3932** io.k8s.apimachinery.pkg.apis.meta.v1.APIResource

Parameter	Type	Description
categories	Array of strings	categories is a list of the grouped resources this resource belongs to (e.g. 'all')
group	String	group is the preferred group of the resource. Empty implies the group of the containing resource list. For subresources, this may have a different value, for example: Scale".
kind	String	kind is the kind for the resource (e.g. 'Foo' is the kind for a resource 'foo')
name	String	name is the plural name of the resource.
namespaced	Boolean	namespaced indicates if a resource is namespaced or not.
shortNames	Array of strings	shortNames is a list of suggested short names of the resource.
singularName	String	singularName is the singular name of the resource. This allows clients to handle plural and singular opaquely. The singularName is more correct for reporting status on a single item and both singular and plural are allowed from the kubectl CLI interface.
storageVersionHash	String	The hash value of the storage version, the version this resource is converted to when written to the data store. Value must be treated as opaque by clients. Only equality comparison on the value is valid. This is an alpha feature and may change or be removed in the future. The field is populated by the apiserver only if the StorageVersionHash feature gate is enabled. This field will remain optional even if it graduates.
verbs	Array of strings	verbs is a list of supported kube verbs (this includes get, list, watch, create, update, patch, delete, deletecollection, and proxy)
version	String	version is the preferred version of the resource. Empty implies the version of the containing resource list For subresources, this may have a different value, for example: v1 (while inside a v1beta1 version of the core resource's group)".

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "groupVersion": "batch.volcano.sh/v1alpha1",
  "kind": "APIResourceList",
  "resources": [ {
    "kind": "Job",
    "name": "jobs",
    "namespaced": true,
    "shortNames": [ "vcjob", "vj" ],
    "singularName": "job",
    "storageVersionHash": "DbMX/QqtM30=",
    "verbs": [ "delete", "deletecollection", "get", "list", "patch", "create", "update", "watch" ]
  }, {
    "kind": "Job",
    "name": "jobs/status",
    "namespaced": true,
    "singularName": "",
    "verbs": [ "get", "patch", "update" ]
  } ]
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout



## 5.15.9 Querying All APIs of batch/v1

### Function

get available resources

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/batch/v1

### Request Parameters

**Table 5-3933** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

### Response Parameters

Status code: 200

**Table 5-3934** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
groupVersion	String	groupVersion is the group and version this APIResourceList is for.

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
resources	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.APIResource</a> objects	resources contains the name of the resources and if they are namespaced.

**Table 5-3935** io.k8s.apimachinery.pkg.apis.meta.v1.APIResource

Parameter	Type	Description
categories	Array of strings	categories is a list of the grouped resources this resource belongs to (e.g. 'all')
group	String	group is the preferred group of the resource. Empty implies the group of the containing resource list. For subresources, this may have a different value, for example: Scale".
kind	String	kind is the kind for the resource (e.g. 'Foo' is the kind for a resource 'foo')
name	String	name is the plural name of the resource.
namespaced	Boolean	namespaced indicates if a resource is namespaced or not.
shortNames	Array of strings	shortNames is a list of suggested short names of the resource.
singularName	String	singularName is the singular name of the resource. This allows clients to handle plural and singular opaquely. The singularName is more correct for reporting status on a single item and both singular and plural are allowed from the kubectl CLI interface.

Parameter	Type	Description
storageVersionHash	String	The hash value of the storage version, the version this resource is converted to when written to the data store. Value must be treated as opaque by clients. Only equality comparison on the value is valid. This is an alpha feature and may change or be removed in the future. The field is populated by the apiserver only if the StorageVersionHash feature gate is enabled. This field will remain optional even if it graduates.
verbs	Array of strings	verbs is a list of supported kube verbs (this includes get, list, watch, create, update, patch, delete, deletecollection, and proxy)
version	String	version is the preferred version of the resource. Empty implies the version of the containing resource list For subresources, this may have a different value, for example: v1 (while inside a v1beta1 version of the core resource's group)".

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "groupVersion": "batch/v1",
  "kind": "APIResourceList",
  "resources": [ {
    "categories": [ "all" ],
    "kind": "Job",
    "name": "jobs",
    "namespaced": true,
    "singularName": "",
    "verbs": [ "create", "delete", "deletecollection", "get", "list", "patch", "update", "watch" ]
  }, {
    "kind": "Job",
    "name": "jobs/status",
    "namespaced": true,
    "singularName": "",
    "verbs": [ "get", "patch", "update" ]
  } ]
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

### 5.15.10 Querying All APIs of batch/v1beta1

#### Function

get available resources

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /apis/batch/v1beta1

## Request Parameters

Table 5-3936 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

Table 5-3937 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
groupVersion	String	groupVersion is the group and version this APIResourceList is for.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
resources	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.APIResource</a> objects	resources contains the name of the resources and if they are namespaced.

**Table 5-3938** io.k8s.apimachinery.pkg.apis.meta.v1.APIResource

Parameter	Type	Description
categories	Array of strings	categories is a list of the grouped resources this resource belongs to (e.g. 'all')
group	String	group is the preferred group of the resource. Empty implies the group of the containing resource list. For subresources, this may have a different value, for example: Scale".
kind	String	kind is the kind for the resource (e.g. 'Foo' is the kind for a resource 'foo')
name	String	name is the plural name of the resource.
namespaced	Boolean	namespaced indicates if a resource is namespaced or not.
shortNames	Array of strings	shortNames is a list of suggested short names of the resource.
singularName	String	singularName is the singular name of the resource. This allows clients to handle plural and singular opaquely. The singularName is more correct for reporting status on a single item and both singular and plural are allowed from the kubectl CLI interface.
storageVersionHash	String	The hash value of the storage version, the version this resource is converted to when written to the data store. Value must be treated as opaque by clients. Only equality comparison on the value is valid. This is an alpha feature and may change or be removed in the future. The field is populated by the apiserver only if the StorageVersionHash feature gate is enabled. This field will remain optional even if it graduates.
verbs	Array of strings	verbs is a list of supported kube verbs (this includes get, list, watch, create, update, patch, delete, deletecollection, and proxy)
version	String	version is the preferred version of the resource. Empty implies the version of the containing resource list For subresources, this may have a different value, for example: v1 (while inside a v1beta1 version of the core resource's group)".

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "groupVersion": "batch/v1beta1",
  "kind": "APIResourceList",
  "resources": [ {
    "categories": [ "all" ],
    "kind": "CronJob",
    "name": "cronjobs",
    "namespaced": true,
    "shortNames": [ "cj" ],
    "singularName": "",
    "storageVersionHash": "h/JlFAZkyyY=",
    "verbs": [ "create", "delete", "deletecollection", "get", "list", "patch", "update", "watch" ]
  } ]
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

### 5.15.11 Querying an APIGroup (/apis/crd.yangtse.cni)

#### Function

This API is used to query an APIGroup (/apis/crd.yangtse.cni).

## Calling Method

For details, see [Calling APIs](#).

## URI

GET /apis/crd.yangtse.cni

## Request Parameters

**Table 5-3939** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

**Status code: 200**

**Table 5-3940** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	name is the name of the group.



Parameter	Type	Description
preferredVersion	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery</a> object	preferredVersion is the version preferred by the API server, which probably is the storage version.
serverAddressByClientCIDRs	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR</a> objects	a map of client CIDR to server address that is serving this group. This is to help clients reach servers in the most network-efficient way possible. Clients can use the appropriate server address as per the CIDR that they match. In case of multiple matches, clients should use the longest matching CIDR. The server returns only those CIDRs that it thinks that the client can match. For example: the master will return an internal IP CIDR only, if the client reaches the server using an internal IP. Server looks at X-Forwarded-For header or X-Real-Ip header or request.RemoteAddr (in that order) to get the client IP.
versions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery</a> objects	versions are the versions supported in this group.

**Table 5-3941** io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery

Parameter	Type	Description
groupVersion	String	groupVersion specifies the API group and version in the form "group/version"
version	String	version specifies the version in the form of "version". This is to save the clients the trouble of splitting the GroupVersion.

**Table 5-3942** io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR

Parameter	Type	Description
clientCIDR	String	The CIDR with which clients can match their IP to figure out the server address that they should use.

Parameter	Type	Description
serverAddress	String	Address of this server, suitable for a client that matches the above CIDR. This can be a hostname, hostname:port, IP or IP:port.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "APIGroup",
  "name": "crd.yangtse.cni",
  "preferredVersion": {
    "groupVersion": "crd.yangtse.cni/v1",
    "version": "v1"
  },
  "versions": [ {
    "groupVersion": "crd.yangtse.cni/v1",
    "version": "v1"
  } ]
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError

Status Code	Description
503	ServiceUnavailable
504	ServerTimeout

## 5.15.12 Querying All APIs of crd.yangtse.cni/v1

### Function

This API is used to query all APIs of crd.yangtse.cni/v1.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/crd.yangtse.cni/v1

### Request Parameters

Table 5-3943 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

### Response Parameters

Status code: 200

**Table 5-3944** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
groupVersion	String	groupVersion is the group and version this APIResourceList is for.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
resources	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.APIResource</a> objects	resources contains the name of the resources and if they are namespaced.

**Table 5-3945** io.k8s.apimachinery.pkg.apis.meta.v1.APIResource

Parameter	Type	Description
categories	Array of strings	categories is a list of the grouped resources this resource belongs to (e.g. 'all')
group	String	group is the preferred group of the resource. Empty implies the group of the containing resource list. For subresources, this may have a different value, for example: Scale".
kind	String	kind is the kind for the resource (e.g. 'Foo' is the kind for a resource 'foo')
name	String	name is the plural name of the resource.
namespaced	Boolean	namespaced indicates if a resource is namespaced or not.
shortNames	Array of strings	shortNames is a list of suggested short names of the resource.

Parameter	Type	Description
singularName	String	singularName is the singular name of the resource. This allows clients to handle plural and singular opaquely. The singularName is more correct for reporting status on a single item and both singular and plural are allowed from the kubectl CLI interface.
storageVersionHash	String	The hash value of the storage version, the version this resource is converted to when written to the data store. Value must be treated as opaque by clients. Only equality comparison on the value is valid. This is an alpha feature and may change or be removed in the future. The field is populated by the apiserver only if the StorageVersionHash feature gate is enabled. This field will remain optional even if it graduates.
verbs	Array of strings	verbs is a list of supported kube verbs (this includes get, list, watch, create, update, patch, delete, deletecollection, and proxy)
version	String	version is the preferred version of the resource. Empty implies the version of the containing resource list For subresources, this may have a different value, for example: v1 (while inside a v1beta1 version of the core resource's group)".

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "groupVersion": "crd.yangtse.cni/v1",
  "kind": "APIResourceList",
  "resources": [ {
    "kind": "EIPPool",
    "name": "eippools",
    "namespaced": true,
    "singularName": "eippool",
    "storageVersionHash": "vG508QhjuOY=",
    "verbs": [ "delete", "deletecollection", "get", "list", "patch", "create", "update", "watch" ]
  }, {
    "kind": "EIPPool",
    "name": "eippools/status",
    "namespaced": true,
    "singularName": "",
    "verbs": [ "get", "patch", "update" ]
  }
]
```

```
  }  
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

### 5.15.13 Querying an APIGroup (/apis/extensions)

#### Function

This API is used to query an APIGroup (/apis/extensions).

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /apis/extensions

## Request Parameters

**Table 5-3946** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-3947** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	name is the name of the group.
preferredVersion	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery</a> object	preferredVersion is the version preferred by the API server, which probably is the storage version.

Parameter	Type	Description
serverAddressByClientCIDRs	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR</a> objects	a map of client CIDR to server address that is serving this group. This is to help clients reach servers in the most network-efficient way possible. Clients can use the appropriate server address as per the CIDR that they match. In case of multiple matches, clients should use the longest matching CIDR. The server returns only those CIDRs that it thinks that the client can match. For example: the master will return an internal IP CIDR only, if the client reaches the server using an internal IP. Server looks at X-Forwarded-For header or X-Real-IP header or request.RemoteAddr (in that order) to get the client IP.
versions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery</a> objects	versions are the versions supported in this group.

**Table 5-3948** io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery

Parameter	Type	Description
groupVersion	String	groupVersion specifies the API group and version in the form "group/version"
version	String	version specifies the version in the form of "version". This is to save the clients the trouble of splitting the GroupVersion.

**Table 5-3949** io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR

Parameter	Type	Description
clientCIDR	String	The CIDR with which clients can match their IP to figure out the server address that they should use.
serverAddress	String	Address of this server, suitable for a client that matches the above CIDR. This can be a hostname, hostname:port, IP or IP:port.



## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "v1",
  "kind": "APIGroup",
  "name": "extensions",
  "preferredVersion": {
    "groupVersion": "extensions/v1beta1",
    "version": "v1beta1"
  },
  "versions": [ {
    "groupVersion": "extensions/v1beta1",
    "version": "v1beta1"
  } ]
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.15.14 Querying All APIs of extensions/v1beta1

### Function

get available resources

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/extensions/v1beta1

### Request Parameters

Table 5-3950 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

### Response Parameters

Status code: 200

Table 5-3951 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
groupVersion	String	groupVersion is the group and version this APIResourceList is for.

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
resources	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.APIResource</a> objects	resources contains the name of the resources and if they are namespaced.

**Table 5-3952** io.k8s.apimachinery.pkg.apis.meta.v1.APIResource

Parameter	Type	Description
categories	Array of strings	categories is a list of the grouped resources this resource belongs to (e.g. 'all')
group	String	group is the preferred group of the resource. Empty implies the group of the containing resource list. For subresources, this may have a different value, for example: Scale".
kind	String	kind is the kind for the resource (e.g. 'Foo' is the kind for a resource 'foo')
name	String	name is the plural name of the resource.
namespaced	Boolean	namespaced indicates if a resource is namespaced or not.
shortNames	Array of strings	shortNames is a list of suggested short names of the resource.
singularName	String	singularName is the singular name of the resource. This allows clients to handle plural and singular opaquely. The singularName is more correct for reporting status on a single item and both singular and plural are allowed from the kubectl CLI interface.

Parameter	Type	Description
storageVersionHash	String	The hash value of the storage version, the version this resource is converted to when written to the data store. Value must be treated as opaque by clients. Only equality comparison on the value is valid. This is an alpha feature and may change or be removed in the future. The field is populated by the apiserver only if the StorageVersionHash feature gate is enabled. This field will remain optional even if it graduates.
verbs	Array of strings	verbs is a list of supported kube verbs (this includes get, list, watch, create, update, patch, delete, deletecollection, and proxy)
version	String	version is the preferred version of the resource. Empty implies the version of the containing resource list For subresources, this may have a different value, for example: v1 (while inside a v1beta1 version of the core resource's group)".

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "groupVersion": "extensions/v1beta1",
  "kind": "APIResourceList",
  "resources": [ {
    "kind": "Ingress",
    "name": "ingresses",
    "namespaced": true,
    "shortNames": [ "ing" ],
    "singularName": "",
    "verbs": [ "create", "delete", "deletecollection", "get", "list", "patch", "update", "watch" ]
  }, {
    "kind": "Ingress",
    "name": "ingresses/status",
    "namespaced": true,
    "singularName": "",
    "verbs": [ "get", "patch", "update" ]
  } ]
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

### 5.15.15 Querying an APIGroup (/apis/metrics.k8s.io)

#### Function

This API is used to query an APIGroup (/apis/metrics.k8s.io).

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /apis/metrics.k8s.io

## Request Parameters

**Table 5-3953** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-3954** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
name	String	name is the name of the group.
preferredVersion	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery</a> object	preferredVersion is the version preferred by the API server, which probably is the storage version.

Parameter	Type	Description
serverAddressByClientCIDRs	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR</a> objects	a map of client CIDR to server address that is serving this group. This is to help clients reach servers in the most network-efficient way possible. Clients can use the appropriate server address as per the CIDR that they match. In case of multiple matches, clients should use the longest matching CIDR. The server returns only those CIDRs that it thinks that the client can match. For example: the master will return an internal IP CIDR only, if the client reaches the server using an internal IP. Server looks at X-Forwarded-For header or X-Real-IP header or request.RemoteAddr (in that order) to get the client IP.
versions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery</a> objects	versions are the versions supported in this group.

**Table 5-3955** io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery

Parameter	Type	Description
groupVersion	String	groupVersion specifies the API group and version in the form "group/version"
version	String	version specifies the version in the form of "version". This is to save the clients the trouble of splitting the GroupVersion.

**Table 5-3956** io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR

Parameter	Type	Description
clientCIDR	String	The CIDR with which clients can match their IP to figure out the server address that they should use.
serverAddress	String	Address of this server, suitable for a client that matches the above CIDR. This can be a hostname, hostname:port, IP or IP:port.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "APIGroup",
  "name": "metrics.k8s.io",
  "preferredVersion": {
    "groupVersion": "metrics.k8s.io/v1beta1",
    "version": "v1beta1"
  },
  "versions": [ {
    "groupVersion": "metrics.k8s.io/v1beta1",
    "version": "v1beta1"
  } ]
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout



## 5.15.16 Querying All APIs of metrics.k8s.io/v1beta1

### Function

get available resources

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/metrics.k8s.io/v1beta1

### Request Parameters

Table 5-3957 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

### Response Parameters

Status code: 200

Table 5-3958 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/api-conventions.md#resources</a>
groupVersion	String	groupVersion is the group and version this APIResourceList is for.

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a>
resources	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.APIResource</a> objects	resources contains the name of the resources and if they are namespaced.

**Table 5-3959** io.k8s.apimachinery.pkg.apis.meta.v1.APIResource

Parameter	Type	Description
categories	Array of strings	categories is a list of the grouped resources this resource belongs to (e.g. 'all')
group	String	group is the preferred group of the resource. Empty implies the group of the containing resource list. For subresources, this may have a different value, for example: Scale".
kind	String	kind is the kind for the resource (e.g. 'Foo' is the kind for a resource 'foo')
name	String	name is the plural name of the resource.
namespaced	Boolean	namespaced indicates if a resource is namespaced or not.
shortNames	Array of strings	shortNames is a list of suggested short names of the resource.
singularName	String	singularName is the singular name of the resource. This allows clients to handle plural and singular opaquely. The singularName is more correct for reporting status on a single item and both singular and plural are allowed from the kubectl CLI interface.

Parameter	Type	Description
storageVersionHash	String	The hash value of the storage version, the version this resource is converted to when written to the data store. Value must be treated as opaque by clients. Only equality comparison on the value is valid. This is an alpha feature and may change or be removed in the future. The field is populated by the apiserver only if the StorageVersionHash feature gate is enabled. This field will remain optional even if it graduates.
verbs	Array of strings	verbs is a list of supported kube verbs (this includes get, list, watch, create, update, patch, delete, deletecollection, and proxy)
version	String	version is the preferred version of the resource. Empty implies the version of the containing resource list For subresources, this may have a different value, for example: v1 (while inside a v1beta1 version of the core resource's group)".

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "groupVersion": "metrics.k8s.io/v1beta1",
  "kind": "APIResourceList",
  "resources": [ {
    "kind": "NodeMetrics",
    "name": "nodes",
    "namespaced": false,
    "singularName": "",
    "verbs": [ "get", "list" ]
  }, {
    "kind": "PodMetrics",
    "name": "pods",
    "namespaced": true,
    "singularName": "",
    "verbs": [ "get", "list" ]
  } ]
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

### 5.15.17 Querying an APIGroup (/apis/networking.cci.io)

#### Function

This API is used to query an APIGroup (/apis/networking.cci.io).

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /apis/networking.cci.io

## Request Parameters

**Table 5-3960** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-3961** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	name is the name of the group.
preferredVersion	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery</a> object	preferredVersion is the version preferred by the API server, which probably is the storage version.

Parameter	Type	Description
serverAddressByClientCIDRs	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR</a> objects	a map of client CIDR to server address that is serving this group. This is to help clients reach servers in the most network-efficient way possible. Clients can use the appropriate server address as per the CIDR that they match. In case of multiple matches, clients should use the longest matching CIDR. The server returns only those CIDRs that it thinks that the client can match. For example: the master will return an internal IP CIDR only, if the client reaches the server using an internal IP. Server looks at X-Forwarded-For header or X-Real-IP header or request.RemoteAddr (in that order) to get the client IP.
versions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery</a> objects	versions are the versions supported in this group.

**Table 5-3962** io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery

Parameter	Type	Description
groupVersion	String	groupVersion specifies the API group and version in the form "group/version"
version	String	version specifies the version in the form of "version". This is to save the clients the trouble of splitting the GroupVersion.

**Table 5-3963** io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR

Parameter	Type	Description
clientCIDR	String	The CIDR with which clients can match their IP to figure out the server address that they should use.
serverAddress	String	Address of this server, suitable for a client that matches the above CIDR. This can be a hostname, hostname:port, IP or IP:port.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "APIGroup",
  "name": "networking.cci.io",
  "preferredVersion": {
    "groupVersion": "networking.cci.io/v1beta1",
    "version": "v1beta1"
  },
  "versions": [ {
    "groupVersion": "networking.cci.io/v1beta1",
    "version": "v1beta1"
  } ]
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.15.18 Querying All APIs of networking.cci.io/v1beta1

### Function

get available resources

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/networking.cci.io/v1beta1

### Request Parameters

Table 5-3964 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

### Response Parameters

Status code: 200

Table 5-3965 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
groupVersion	String	groupVersion is the group and version this APIResourceList is for.



Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
resources	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.APIResource</a> objects	resources contains the name of the resources and if they are namespaced.

**Table 5-3966** io.k8s.apimachinery.pkg.apis.meta.v1.APIResource

Parameter	Type	Description
categories	Array of strings	categories is a list of the grouped resources this resource belongs to (e.g. 'all')
group	String	group is the preferred group of the resource. Empty implies the group of the containing resource list. For subresources, this may have a different value, for example: Scale".
kind	String	kind is the kind for the resource (e.g. 'Foo' is the kind for a resource 'foo')
name	String	name is the plural name of the resource.
namespaced	Boolean	namespaced indicates if a resource is namespaced or not.
shortNames	Array of strings	shortNames is a list of suggested short names of the resource.
singularName	String	singularName is the singular name of the resource. This allows clients to handle plural and singular opaquely. The singularName is more correct for reporting status on a single item and both singular and plural are allowed from the kubectl CLI interface.

Parameter	Type	Description
storageVersionHash	String	The hash value of the storage version, the version this resource is converted to when written to the data store. Value must be treated as opaque by clients. Only equality comparison on the value is valid. This is an alpha feature and may change or be removed in the future. The field is populated by the apiserver only if the StorageVersionHash feature gate is enabled. This field will remain optional even if it graduates.
verbs	Array of strings	verbs is a list of supported kube verbs (this includes get, list, watch, create, update, patch, delete, deletecollection, and proxy)
version	String	version is the preferred version of the resource. Empty implies the version of the containing resource list For subresources, this may have a different value, for example: v1 (while inside a v1beta1 version of the core resource's group)".

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "groupVersion": "networking.cci.io/v1beta1",
  "kind": "APIResourceList",
  "resources": [ {
    "kind": "Network",
    "name": "networks",
    "namespaced": true,
    "singularName": "",
    "verbs": [ "create", "delete", "deletecollection", "get", "list", "patch", "update", "watch" ]
  }, {
    "kind": "Network",
    "name": "networks/status",
    "namespaced": true,
    "singularName": "",
    "verbs": [ "get", "patch", "update" ]
  } ]
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

### 5.15.19 Querying an APIGroup (/apis/rbac.authorization.k8s.io)

#### Function

get information of a group

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /apis/rbac.authorization.k8s.io

## Request Parameters

**Table 5-3967** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-3968** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	name is the name of the group.
preferredVersion	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery</a> object	preferredVersion is the version preferred by the API server, which probably is the storage version.

Parameter	Type	Description
serverAddressByClientCIDRs	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR</a> objects	a map of client CIDR to server address that is serving this group. This is to help clients reach servers in the most network-efficient way possible. Clients can use the appropriate server address as per the CIDR that they match. In case of multiple matches, clients should use the longest matching CIDR. The server returns only those CIDRs that it thinks that the client can match. For example: the master will return an internal IP CIDR only, if the client reaches the server using an internal IP. Server looks at X-Forwarded-For header or X-Real-Ip header or request.RemoteAddr (in that order) to get the client IP.
versions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery</a> objects	versions are the versions supported in this group.

**Table 5-3969** io.k8s.apimachinery.pkg.apis.meta.v1.GroupVersionForDiscovery

Parameter	Type	Description
groupVersion	String	groupVersion specifies the API group and version in the form "group/version"
version	String	version specifies the version in the form of "version". This is to save the clients the trouble of splitting the GroupVersion.

**Table 5-3970** io.k8s.apimachinery.pkg.apis.meta.v1.ServerAddressByClientCIDR

Parameter	Type	Description
clientCIDR	String	The CIDR with which clients can match their IP to figure out the server address that they should use.
serverAddress	String	Address of this server, suitable for a client that matches the above CIDR. This can be a hostname, hostname:port, IP or IP:port.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "APIGroup",
  "name": "rbac.authorization.k8s.io",
  "preferredVersion": {
    "groupVersion": "rbac.authorization.k8s.io/v1",
    "version": "v1"
  },
  "versions": [ {
    "groupVersion": "rbac.authorization.k8s.io/v1",
    "version": "v1"
  } ]
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.15.20 Querying All APIs of rbac.authorization.k8s.io/v1

### Function

get available resources

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/rbac.authorization.k8s.io/v1

### Request Parameters

Table 5-3971 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

### Response Parameters

Status code: 200

Table 5-3972 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
groupVersion	String	groupVersion is the group and version this APIResourceList is for.

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
resources	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.APIResource</a> objects	resources contains the name of the resources and if they are namespaced.

**Table 5-3973** io.k8s.apimachinery.pkg.apis.meta.v1.APIResource

Parameter	Type	Description
categories	Array of strings	categories is a list of the grouped resources this resource belongs to (e.g. 'all')
group	String	group is the preferred group of the resource. Empty implies the group of the containing resource list. For subresources, this may have a different value, for example: Scale".
kind	String	kind is the kind for the resource (e.g. 'Foo' is the kind for a resource 'foo')
name	String	name is the plural name of the resource.
namespaced	Boolean	namespaced indicates if a resource is namespaced or not.
shortNames	Array of strings	shortNames is a list of suggested short names of the resource.
singularName	String	singularName is the singular name of the resource. This allows clients to handle plural and singular opaquely. The singularName is more correct for reporting status on a single item and both singular and plural are allowed from the kubectl CLI interface.



Parameter	Type	Description
storageVersionHash	String	The hash value of the storage version, the version this resource is converted to when written to the data store. Value must be treated as opaque by clients. Only equality comparison on the value is valid. This is an alpha feature and may change or be removed in the future. The field is populated by the apiserver only if the StorageVersionHash feature gate is enabled. This field will remain optional even if it graduates.
verbs	Array of strings	verbs is a list of supported kube verbs (this includes get, list, watch, create, update, patch, delete, deletecollection, and proxy)
version	String	version is the preferred version of the resource. Empty implies the version of the containing resource list For subresources, this may have a different value, for example: v1 (while inside a v1beta1 version of the core resource's group)".

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "groupVersion": "rbac.authorization.k8s.io/v1",
  "kind": "APIResourceList",
  "resources": [ {
    "kind": "ClusterRole",
    "name": "clusterroles",
    "namespaced": false,
    "singularName": "",
    "storageVersionHash": "bYE5ZWDrJ44=",
    "verbs": [ "create", "delete", "deletecollection", "get", "list", "patch", "update", "watch" ]
  }, {
    "kind": "RoleBinding",
    "name": "rolebindings",
    "namespaced": true,
    "singularName": "",
    "storageVersionHash": "eGsCzGH6b1g=",
    "verbs": [ "create", "delete", "deletecollection", "get", "list", "patch", "update", "watch" ]
  } ]
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.16 Event

### 5.16.1 Querying Events in a Namespace

#### Function

This API is used to query the details about all events in a specified namespace.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /api/v1/namespaces/{namespace}/events

**Table 5-3974** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3975** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3976** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-3977** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.core.v1.Event</a> objects	List of events
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

**Table 5-3978** io.k8s.api.core.v1.Event

Parameter	Type	Description
action	String	What action was taken/failed regarding to the Regarding object.
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
count	Integer	The number of times this event has occurred.
eventTime	String	Time when this Event was first observed.
firstTimestamp	String	The time at which the event was first recorded. (Time of server receipt is in TypeMeta.)
involvedObject	<a href="#">io.k8s.api.core.v1.ObjectReference</a> object	The object that this event is about.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
lastTimestamp	String	The time at which the most recent occurrence of this event was recorded.
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
reason	String	This should be a short, machine understandable string that gives the reason for the transition into the object's current status.
related	<a href="#">io.k8s.api.core.v1.ObjectReference</a> object	Optional secondary object for more complex actions.



Parameter	Type	Description
reportingComponent	String	Name of the controller that emitted this Event, e.g. <i>kubernetes.io/kubelet</i> .
reportingInstance	String	ID of the controller instance, e.g. <i>kubelet-xyzf</i> .
series	<a href="#">io.k8s.api.core.v1.EventSeries</a> object	Data about the Event series this event represents or nil if it's a singleton Event.
source	<a href="#">io.k8s.api.core.v1.EventSource</a> object	The component reporting this event. Should be a short machine understandable string.
type	String	Type of this event (Normal, Warning), new types could be added in the future

**Table 5-3979** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3980** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-3981** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3982** io.k8s.api.core.v1.ObjectReference

Parameter	Type	Description
apiVersion	String	API version of the referent.

Parameter	Type	Description
fieldPath	String	If referring to a piece of an object instead of an entire object, this string should contain a valid JSON/Go field access statement, such as <code>desiredState.manifest.containers[2]</code> . For example, if the object reference is to a container within a pod, this would take on a value like: <code>"spec.containers{name}"</code> (where "name" refers to the name of the container that triggered the event) or if no container name is specified <code>"spec.containers[2]"</code> (container with index 2 in this pod). This syntax is chosen only to have some well-defined way of referencing a part of an object.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
namespace	String	Namespace of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/">https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/</a>
resourceVersion	String	Specific resourceVersion to which this reference is made, if any. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
uid	String	UID of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids</a>

**Table 5-3983** io.k8s.api.core.v1.EventSeries

Parameter	Type	Description
count	Integer	Number of occurrences in this series up to the last heartbeat time
lastObservedTime	String	Time of the last occurrence observed

**Table 5-3984** io.k8s.api.core.v1.EventSource

Parameter	Type	Description
component	String	Component from which the event is generated.
host	String	Node name on which the event is generated.

**Table 5-3985** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.



Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "v1",
  "items": [ {
    "count": 1,
    "eventTime": null,
    "firstTimestamp": "2018-09-03T12:58:07Z",
    "involvedObject": {
      "apiVersion": "v1",
      "kind": "Pod",
      "name": "deployment-test-57f7cff77c-5x5tw",
      "namespace": "namespace-test",
      "resourceVersion": "5036865",
      "uid": "010fec39-af79-11e8-8f17-c81fbe371a17"
    },
    },
  "lastTimestamp": "2018-09-03T12:58:07Z",
  "message": "Successfully assigned deployment-test-57f7cff77c-5x5tw to\r\nrc0dd6256-195a-
e811-90a2-10c17294fcbc",
  "metadata": {
    "creationTimestamp": "2018-09-03T12:58:07Z",
    "name": "deployment-test-57f7cff77c-5x5tw.1550e534d2d8a5ef",
    "namespace": "namespace-test",
    "resourceVersion": "760533",
    "selfLink": "/api/v1/namespaces/namespace-test/events/deployment-
test-57f7cff77c-5x5tw.1550e534d2d8a5ef",
    "uid": "0122b5b2-af79-11e8-8f17-c81fbe371a17"
  },
  "reason": "Scheduled",
  "reportingComponent": "",
  "reportingInstance": "",
  "source": {
```

```
    "component" : "default-scheduler"
  },
  "type" : "Normal"
}, {
  "count" : 2,
  "eventTime" : null,
  "firstTimestamp" : "2018-09-03T12:58:07Z",
  "involvedObject" : {
    "apiVersion" : "v1",
    "kind" : "Pod",
    "name" : "deployment-test-57f7cff77c-5x5tw",
    "namespace" : "namespace-test",
    "resourceVersion" : "5036870",
    "uid" : "010fec39-af79-11e8-8f17-c81fbe371a17"
  },
  "lastTimestamp" : "2018-09-03T12:58:12Z",
  "message" : "Successfully mounted volumes for pod \"deployment-test-57f7cff77c-5x5tw_namespace-test(010fec39-af79-11e8-8f17-c81fbe371a17)\"",
  "metadata" : {
    "creationTimestamp" : "2018-09-03T12:58:07Z",
    "name" : "deployment-test-57f7cff77c-5x5tw.1550e534d3105acd",
    "namespace" : "namespace-test",
    "resourceVersion" : "760542",
    "selfLink" : "/api/v1/namespaces/namespace-test/events/deployment-test-57f7cff77c-5x5tw.1550e534d3105acd",
    "uid" : "0123faea-af79-11e8-8f17-c81fbe371a17"
  },
  "reason" : "SuccessfulMountVolume",
  "reportingComponent" : "",
  "reportingInstance" : "",
  "source" : {
    "component" : "kubelet",
    "host" : "c0dd6256-195a-e811-90a2-10c17294fcbc"
  },
  "type" : "Normal"
}, {
  "count" : 1,
  "eventTime" : null,
  "firstTimestamp" : "2018-09-03T12:58:09Z",
  "involvedObject" : {
    "apiVersion" : "v1",
    "fieldPath" : "spec.containers{container-0}",
    "kind" : "Pod",
    "name" : "deployment-test-57f7cff77c-5x5tw",
    "namespace" : "namespace-test",
    "resourceVersion" : "5036870",
    "uid" : "010fec39-af79-11e8-8f17-c81fbe371a17"
  },
  "lastTimestamp" : "2018-09-03T12:58:09Z",
  "message" : "pulling image \"*.*.*.20202/cci/redis:v1\"",
  "metadata" : {
    "creationTimestamp" : "2018-09-03T12:58:09Z",
    "name" : "deployment-test-57f7cff77c-5x5tw.1550e5354a5915e0",
    "namespace" : "namespace-test",
    "resourceVersion" : "760536",
    "selfLink" : "/api/v1/namespaces/namespace-test/events/deployment-test-57f7cff77c-5x5tw.1550e5354a5915e0",
    "uid" : "025554a4-af79-11e8-8f17-c81fbe371a17"
  },
  "reason" : "Pulling",
  "reportingComponent" : "",
  "reportingInstance" : "",
  "source" : {
    "component" : "kubelet",
    "host" : "c0dd6256-195a-e811-90a2-10c17294fcbc"
  },
  "type" : "Normal"
}
}],
"kind" : "EventList",
```

```
"metadata" : {  
  "resourceVersion" : "764693",  
  "selfLink" : "/api/v1/namespaces/namespace-test/events"  
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.16.2 Deleting an Event

### Function

This API is used to delete a specified event.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /api/v1/namespaces/{namespace}/events/{name}

**Table 5-3986** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Event
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-3987** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.

Parameter	Mandatory	Type	Description
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-3988** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-3989** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-3990** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

**Status code: 200**

**Table 5-3991** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>



**Table 5-3992** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3993** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional.  Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"

Parameter	Type	Description
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-3994** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Status code: 202

Table 5-3995 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-3996** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>

Parameter	Type	Description
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-3997** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-3998** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.

Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

```
{
  "apiVersion": "v1",
  "gracePeriodSeconds": 0,
  "kind": "DeleteOptions"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "details": {
    "kind": "events",
    "name": "cci-deployment-cml002.15c0dbdd5715a8da",
  }
}
```

```
"uid" : "68db3125-ce19-11e9-8d71-d0efc1b3bb6b"  
},  
"kind" : "Status",  
"metadata" : { },  
"status" : "Success"  
}
```

## Status Codes

Status Code	Description
200	OK
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

### 5.16.3 Querying an Event

#### Function

This API is used query the details about a specified event.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /api/v1/namespaces/{namespace}/events/{name}

**Table 5-3999** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Event
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-4000** Query Parameters

Parameter	Mandatory	Type	Description
exact	No	Boolean	Should the export be exact. Exact export maintains cluster-specific fields like 'Namespace'. Deprecated. Planned for removal in 1.18.
export	No	Boolean	Should this value be exported. Export strips fields that a user can not specify. Deprecated. Planned for removal in 1.18.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-4001** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

**Status code: 200**



**Table 5-4002** Response body parameters

Parameter	Type	Description
action	String	What action was taken/failed regarding to the Regarding object.
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
count	Integer	The number of times this event has occurred.
eventTime	String	Time when this Event was first observed.
firstTimestamp	String	The time at which the event was first recorded. (Time of server receipt is in TypeMeta.)
involvedObject	<a href="#">io.k8s.api.core.v1.ObjectReference</a> object	The object that this event is about.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
lastTimestamp	String	The time at which the most recent occurrence of this event was recorded.
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
reason	String	This should be a short, machine understandable string that gives the reason for the transition into the object's current status.
related	<a href="#">io.k8s.api.core.v1.ObjectReference</a> object	Optional secondary object for more complex actions.

Parameter	Type	Description
reportingComponent	String	Name of the controller that emitted this Event, e.g. <i>kubernetes.io/kubelet</i> .
reportingInstance	String	ID of the controller instance, e.g. <i>kubelet-xyzf</i> .
series	<a href="#">io.k8s.api.core.v1.EventSeries</a> object	Data about the Event series this event represents or nil if it's a singleton Event.
source	<a href="#">io.k8s.api.core.v1.EventSource</a> object	The component reporting this event. Should be a short machine understandable string.
type	String	Type of this event (Normal, Warning), new types could be added in the future

**Table 5-4003** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-4004** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4005** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4006** io.k8s.api.core.v1.ObjectReference

Parameter	Type	Description
apiVersion	String	API version of the referent.

Parameter	Type	Description
fieldPath	String	If referring to a piece of an object instead of an entire object, this string should contain a valid JSON/Go field access statement, such as <code>desiredState.manifest.containers[2]</code> . For example, if the object reference is to a container within a pod, this would take on a value like: <code>"spec.containers{name}"</code> (where "name" refers to the name of the container that triggered the event) or if no container name is specified <code>"spec.containers[2]"</code> (container with index 2 in this pod). This syntax is chosen only to have some well-defined way of referencing a part of an object.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
namespace	String	Namespace of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/">https://kubernetes.io/docs/concepts/overview/working-with-objects/namespaces/</a>
resourceVersion	String	Specific resourceVersion to which this reference is made, if any. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
uid	String	UID of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#uids</a>

**Table 5-4007** io.k8s.api.core.v1.EventSeries

Parameter	Type	Description
count	Integer	Number of occurrences in this series up to the last heartbeat time
lastObservedTime	String	Time of the last occurrence observed



**Table 5-4008** io.k8s.api.core.v1.EventSource

Parameter	Type	Description
component	String	Component from which the event is generated.
host	String	Node name on which the event is generated.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "count": 1,
  "eventTime": null,
  "firstTimestamp": "2018-09-03T12:58:07Z",
  "involvedObject": {
    "apiVersion": "v1",
    "kind": "Pod",
    "name": "deployment-test-57f7cff77c-5x5tw",
    "namespace": "namespace-test",
    "resourceVersion": "5036865",
    "uid": "010fec39-af79-11e8-8f17-c81fbe371a17"
  },
  "kind": "Event",
  "lastTimestamp": "2018-09-03T12:58:07Z",
  "message": "Successfully assigned deployment-test-57f7cff77c-5x5tw to c0dd6256-195a-e811-90a2-10c17294fcbc",
  "metadata": {
    "creationTimestamp": "2018-09-03T12:58:07Z",
    "name": "deployment-test-57f7cff77c-5x5tw.1550e534d2d8a5ef",
    "namespace": "namespace-test",
    "resourceVersion": "760533",
    "selfLink": "/api/v1/namespaces/namespace-test/events/deployment-test-57f7cff77c-5x5tw.1550e534d2d8a5ef",
    "uid": "0122b5b2-af79-11e8-8f17-c81fbe371a17"
  },
  "reason": "Scheduled",
  "reportingComponent": "",
  "reportingInstance": "",
  "source": {
    "component": "default-scheduler"
  },
  "type": "Normal"
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest

Status Code	Description
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.17 PersistentVolumeClaim

### 5.17.1 Querying PVCs in a Namespace

#### Function

This API is used to query all PersistentVolumeClaims (PVCs) in a specified namespace.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /api/v1/namespaces/{namespace}/persistentvolumeclaims

**Table 5-4009** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-4010** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

Table 5-4011 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

Table 5-4012 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> objects	A list of persistent volume claims. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

**Table 5-4013** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-4014** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>



Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4015** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4016** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4017** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-4018** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-4019** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-4020** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-4021** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.



Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-4022** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-4023** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Table 5-4024** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "v1",
  "items": [ {
    "metadata": {
      "annotations": {
        "pv.kubernetes.io/bind-completed": "yes",
        "pv.kubernetes.io/bound-by-controller": "yes",
        "volume.beta.kubernetes.io/storage-class": "sata",
        "volume.beta.kubernetes.io/storage-provisioner": "flexvolume-huawei.com/fuxivol"
      },
      "creationTimestamp": "2018-09-07T07:17:38Z",
      "finalizers": [ "kubernetes.io/pvc-protection" ],
      "name": "pvc-test",
      "namespace": "test-namespace",
      "resourceVersion": "5915795",
      "selfLink": "/api/v1/namespaces/test-namespace/persistentvolumeclaims/pvc-test",
      "uid": "19a355cc-b26e-11e8-b205-c88d83be759f"
    },
    "spec": {
      "accessModes": [ "ReadWriteMany" ],
      "resources": {
        "requests": {
          "storage": "10Gi"
        }
      }
    },
    "volumeName": "pvc-19a355cc-b26e-11e8-b205-c88d83be759f"
  } ],
  "status": {
    "accessModes": [ "ReadWriteMany" ],
    "capacity": {
```

```

    "storage" : "10Gi"
  },
  "phase" : "Bound"
}
}],
"kind" : "PersistentVolumeClaimList",
"metadata" : {
  "resourceVersion" : "6456754",
  "selfLink" : "/api/v1/namespaces/namespace-test/persistentvolumeclaims"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.17.2 Creating a PVC

### Function

This API is used to dynamically create a PVC. If no storage resources are available, a storage resource is automatically created when there is a request for creating a PVC.

EVS and SFS volumes are supported. The **spec.storageClassName** parameter specifies the volume type. It has the following values:

- **sata**: common I/O EVS volumes

- **sas**: high I/O EVS volumes
- **ssd**: ultra-high I/O EVS volumes
- **csi-disk-gpssd**: General-Purpose SSD EVS volumes
- **csi-disk-gpssd2**: General-Purpose SSD V2 EVS volumes
- **nfs-rw**: Network File System (NFS) volumes
- **csi-sfs**: SFS 3.0 Capacity-Oriented volumes
- **csi-sfsturbo-hpc**: SFS Turbo HPC volumes

If **spec.storageClassName** is not specified, you can specify **volume.beta.kubernetes.io/storage-class** in **metadata.annotations**. The two parameters have the same values. Specify either of the two parameters.

To create an encrypted EVS volume, add the **paas.storage.io/cryptKeyId** field to **metadata.annotations**. To create an encrypted SFS volume, add the **paas.storage.io/cryptKeyId**, **paas.storage.io/cryptAlias**, and **paas.storage.io/cryptDomainId** fields to **metadata.annotations**.

To create a General-Purpose SSD V2 EVS volume, add the **everest.io/disk-iops** and **everest.io/disk-throughput** fields to **metadata.annotations**. For details about the IOPS and throughput, see the EVS documentation.

## Calling Method

For details, see [Calling APIs](#).

## URI

POST /api/v1/namespaces/{namespace}/persistentvolumeclaims

**Table 5-4025** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-4026** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

Parameter	Mandatory	Type	Description
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-4027** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-4028** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Mandatory	Type	Description
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-4029** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Mandatory	Type	Description
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.



Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-4030** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4031** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4032** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Mandatory	Type	Description
dataSource	No	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	No	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>



Parameter	Mandatory	Type	Description
volumeMode	No	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	No	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-4033** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Mandatory	Type	Description
apiGroup	No	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	Yes	String	Kind is the type of resource being referenced
name	Yes	String	Name is the name of resource being referenced

**Table 5-4034** io.k8s.api.core.v1.ResourceRequirements

Parameter	Mandatory	Type	Description
limits	No	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Mandatory	Type	Description
requests	No	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-4035** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	No	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-4036** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	key is the label key that the selector applies to.
operator	Yes	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.

Parameter	Mandatory	Type	Description
values	No	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-4037** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	No	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	No	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	No	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-4038** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Mandatory	Type	Description
lastProbeTime	No	String	Last time we probed the condition.
lastTransitionTime	No	String	Last time the condition transitioned from one status to another.

Parameter	Mandatory	Type	Description
message	No	String	Human-readable message indicating details about last transition.
reason	No	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	Yes	String	status is the status of the condition.
type	Yes	String	type is the type of the condition.

## Response Parameters

Status code: 200

**Table 5-4039** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-4040** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.



Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4041** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4042** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4043** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-4044** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-4045** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-4046** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-4047** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-4048** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-4049** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Status code: 201**

**Table 5-4050** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-4051** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>



Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4052** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4053** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4054** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-4055** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-4056** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-4057** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-4058** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-4059** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-4060** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Status code: 202**

**Table 5-4061** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>



**Table 5-4062** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-4063** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4064** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4065** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-4066** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-4067** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-4068** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-4069** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.



Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-4070** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-4071** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

## Example Requests

- Creating a 10-GB encrypted common I/O EVS volume

```
{
  "apiVersion": "v1",
  "kind": "PersistentVolumeClaim",
  "metadata": {
    "annotations": {
      "paas.storage.io/cryptKeyId": "ee9b610c-e356-11e9-aadc-d0efc1b3bb6b",
      "volume.beta.kubernetes.io/storage-class": "sata"
    },
    "name": "pvc-test",
    "namespace": "test-namespace"
  },
  "spec": {
    "accessModes": [ "ReadWriteMany" ],
    "resources": {
      "requests": {
        "storage": "10Gi"
      }
    }
  }
}
```

- Creating a 10-GB encrypted SFS volume

```
{
  "apiVersion": "v1",
  "kind": "PersistentVolumeClaim",
  "metadata": {
    "annotations": {
      "paas.storage.io/cryptAlias": "sfs/default",
      "paas.storage.io/cryptDomainId": "d6912480-c3d6-4e9e-8c70-38afeea434c3",
      "paas.storage.io/cryptKeyId": "ee9b610c-e356-11e9-aadc-d0efc1b3bb6b",
      "volume.beta.kubernetes.io/storage-class": "nfs-rw"
    },
    "name": "pvc-test",
    "namespace": "test-namespace"
  },
  "spec": {
    "accessModes": [ "ReadWriteMany" ],
    "resources": {
      "requests": {
        "storage": "10Gi"
      }
    }
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "PersistentVolumeClaim",
  "metadata": {
    "annotations": {
      "paas.storage.io/cryptKeyld": "ee9b610c-e356-11e9-aadc-d0efc1b3bb6b",
      "pv.kubernetes.io/bind-completed": "yes",
      "pv.kubernetes.io/bound-by-controller": "yes",
      "volume.beta.kubernetes.io/storage-provisioner": "flexvolume-huawei.com/fuxivol"
    },
    "creationTimestamp": "2018-11-24T07:48:35Z",
    "finalizers": [ "kubernetes.io/pvc-protection" ],
    "labels": {
      "app": "evs"
    },
    "name": "pvc-test",
    "namespace": "test-namespace",
    "resourceVersion": "28156856",
    "selfLink": "/api/v1/namespaces/ns-test/persistentvolumeclaims/pvc-test",
    "uid": "58d15f3e-efbd-11e8-8950-501d934409f3"
  },
  "spec": {
    "accessModes": [ "ReadWriteMany" ],
    "resources": {
      "requests": {
        "storage": "10Gi"
      }
    },
    "storageClassName": "sata",
    "volumeName": "pvc-58d15f3e-efbd-11e8-8950-501d934409f3"
  },
  "status": {
    "accessModes": [ "ReadWriteMany" ],
    "capacity": {
      "storage": "10Gi"
    },
    "phase": "Bound"
  }
}
```

## Status Codes

Status Code	Description
200	OK
201	Created
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable

Status Code	Description
409	AlreadyExists
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

### 5.17.3 Deleting a PVC

#### Function

This API is used to delete a PVC.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

DELETE /api/v1/namespaces/{namespace}/persistentvolumeclaims/{name}

**Table 5-4072** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the PersistentVolumeClaim
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-4073** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.

Parameter	Mandatory	Type	Description
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-4074** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-4075** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-4076** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

Status code: 200



**Table 5-4077** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-4078** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4079** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4080** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4081** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-4082** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.



Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-4083** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-4084** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-4085** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-4086** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-4087** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Status code: 202**

**Table 5-4088** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-4089** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4090** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.



Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4091** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4092** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-4093** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-4094** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-4095** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-4096** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-4097** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-4098** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

## Example Requests

```
{
  "apiVersion": "v1",
  "gracePeriodSeconds": 0,
  "kind": "DeleteOptions"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "PersistentVolumeClaim",
  "metadata": {
    "annotations": {
      "volume.beta.kubernetes.io/storage-class": "sata",
      "volume.beta.kubernetes.io/storage-provisioner": "flexvolume-huawei.com/fuxivol"
    },
    "creationTimestamp": "2018-09-06T07:27:47Z",
    "deletionGracePeriodSeconds": 0,
    "deletionTimestamp": "2018-09-06T07:51:51Z",
    "finalizers": [ "kubernetes.io/pvc-protection" ],
    "name": "pvc-test",
    "namespace": "namespace-test",
    "resourceVersion": "5669396",
    "selfLink": "/api/v1/namespaces/namespace-test/persistentvolumeclaims/pvc-test",
    "uid": "5a9ab4c1-b1a6-11e8-8b84-c88d83be759f"
  },
  "spec": {
    "accessModes": [ "ReadWriteMany" ],
    "resources": {
      "requests": {
        "storage": "10Gi"
      }
    }
  },
  "status": {
    "phase": "Pending"
  }
}
```

## Status Codes

Status Code	Description
200	OK
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.17.4 Querying a PVC

### Function

This API is used to query a specified PVC.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /api/v1/namespaces/{namespace}/persistentvolumeclaims/{name}

**Table 5-4099** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the PersistentVolumeClaim

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-4100** Query Parameters

Parameter	Mandatory	Type	Description
exact	No	Boolean	Should the export be exact. Exact export maintains cluster-specific fields like 'Namespace'. Deprecated. Planned for removal in 1.18.
export	No	Boolean	Should this value be exported. Export strips fields that a user can not specify. Deprecated. Planned for removal in 1.18.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-4101** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

**Status code: 200**

**Table 5-4102** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-4103** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>



Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-4104** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4105** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4106** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-4107** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-4108** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-4109** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-4110** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.



Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-4111** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-4112** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "PersistentVolumeClaim",
  "metadata": {
    "annotations": {
      "pv.kubernetes.io/bind-completed": "yes",
      "pv.kubernetes.io/bound-by-controller": "yes",
      "volume.beta.kubernetes.io/storage-class": "sata",
      "volume.beta.kubernetes.io/storage-provisioner": "flexvolume-huawei.com/fuxivol"
    },
    "creationTimestamp": "2018-09-07T07:17:38Z",
    "finalizers": [ "kubernetes.io/pvc-protection" ],
    "name": "pvc-test",
    "namespace": "test-namespace",
    "resourceVersion": "5915795",
    "selfLink": "/api/v1/namespaces/test-namespace/persistentvolumeclaims/pvc-test",
    "uid": "19a355cc-b26e-11e8-b205-c88d83be759f"
  },
  "spec": {
    "accessModes": [ "ReadWriteMany" ],
    "resources": {
      "requests": {
        "storage": "10Gi"
      }
    }
  },
  "volumeName": "pvc-19a355cc-b26e-11e8-b205-c88d83be759f"
},
"status": {
  "accessModes": [ "ReadWriteMany" ],
  "capacity": {
    "storage": "10Gi"
  },
  "phase": "Bound"
}
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.17.5 Replacing PVCs

### Function

This API is used to replacing a specified PVC.

The following fields can be updated:

- **metadata.labels**
- **metadata.annotations**
- **metadata.generateName** Other fields cannot be updated.

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /api/v1/namespaces/{namespace}/persistentvolumeclaims/{name}

**Table 5-4113** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the PersistentVolumeClaim
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-4114** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-4115** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-4116** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

Parameter	Mandatory	Type	Description
status	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-4117** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Mandatory	Type	Description
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>



Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-4118** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4119** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4120** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Mandatory	Type	Description
dataSource	No	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	No	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>

Parameter	Mandatory	Type	Description
volumeMode	No	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	No	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-4121** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Mandatory	Type	Description
apiGroup	No	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	Yes	String	Kind is the type of resource being referenced
name	Yes	String	Name is the name of resource being referenced

**Table 5-4122** io.k8s.api.core.v1.ResourceRequirements

Parameter	Mandatory	Type	Description
limits	No	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>



Parameter	Mandatory	Type	Description
requests	No	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-4123** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	No	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-4124** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	key is the label key that the selector applies to.
operator	Yes	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.

Parameter	Mandatory	Type	Description
values	No	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-4125** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	No	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	No	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	No	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-4126** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Mandatory	Type	Description
lastProbeTime	No	String	Last time we probed the condition.
lastTransitionTime	No	String	Last time the condition transitioned from one status to another.

Parameter	Mandatory	Type	Description
message	No	String	Human-readable message indicating details about last transition.
reason	No	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	Yes	String	status is the status of the condition.
type	Yes	String	type is the type of the condition.

## Response Parameters

Status code: 200

Table 5-4127 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-4128** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.
generateName	String	GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.  If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).  Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a>
generation	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-4129** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>



Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4130** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4131** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-4132** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-4133** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-4134** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-4135** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-4136** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-4137** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Status code: 201**

**Table 5-4138** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-4139** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>



Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4140** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4141** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4142** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-4143** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-4144** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-4145** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-4146** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-4147** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-4148** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

## Example Requests

Updating `metadata.labels` for PVCs

```
{
  "apiVersion": "v1",
  "kind": "PersistentVolumeClaim",
  "metadata": {
    "annotations": {
      "everest.io/disk-volume-type": "SATA",
      "pv.kubernetes.io/bind-completed": "yes",
      "pv.kubernetes.io/bound-by-controller": "yes",
      "volume.beta.kubernetes.io/storage-provisioner": "everest-csi-provisioner"
    },
    "creationTimestamp": "2023-06-25T02:59:26Z",
    "finalizers": [ "kubernetes.io/pvc-protection" ],
    "labels": {
      "failure-domain.beta.kubernetes.io/region": "cn-north-7",
      "failure-domain.beta.kubernetes.io/zone": "cn-north-7a"
    },
    "name": "pvc-test",
    "namespace": "test-namespace",
    "resourceVersion": "343613181",
    "selfLink": "/api/v1/namespaces/test-namespace/persistentvolumeclaims/pvc-test",
    "uid": "bb99f33d-a5da-46b4-90a4-b0c6b3eedabf"
  },
  "spec": {
    "accessModes": [ "ReadWriteMany" ],
    "resources": {
      "requests": {
        "storage": "10Gi"
      }
    },
    "storageClassName": "sata",
    "volumeMode": "Filesystem",
    "volumeName": "pvc-bb99f33d-a5da-46b4-90a4-b0c6b3eedabf"
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "kind": "PersistentVolumeClaim",
  "metadata": {
    "annotations": {
```

```

"everest.io/disk-volume-type" : "SATA",
"pv.kubernetes.io/bind-completed" : "yes",
"pv.kubernetes.io/bound-by-controller" : "yes",
"volume.beta.kubernetes.io/storage-provisioner" : "everest-csi-provisioner"
},
"creationTimestamp" : "2023-06-25T02:59:26Z",
"finalizers" : [ "kubernetes.io/pvc-protection" ],
"labels" : {
  "failure-domain.beta.kubernetes.io/region" : "cn-north-7",
  "failure-domain.beta.kubernetes.io/zone" : "cn-north-7a"
},
"name" : "pvc-test",
"namespace" : "test-namespace",
"resourceVersion" : "343622839",
"selfLink" : "/api/v1/namespaces/test-namespace/persistentvolumeclaims/pvc-test",
"uid" : "bb99f33d-a5da-46b4-90a4-b0c6b3eedabf"
},
"spec" : {
  "accessModes" : [ "ReadWriteMany" ],
  "resources" : {
    "requests" : {
      "storage" : "10Gi"
    }
  },
  "storageClassName" : "sata",
  "volumeMode" : "Filesystem",
  "volumeName" : "pvc-bb99f33d-a5da-46b4-90a4-b0c6b3eedabf"
},
"status" : {
  "accessModes" : [ "ReadWriteMany" ],
  "capacity" : {
    "storage" : "10Gi"
  },
  "phase" : "Bound"
}
}

```

## Status Codes

Status Code	Description
200	OK
201	Created
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests



Status Code	Description
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.18 RoleBinding

### 5.18.1 Listing RoleBindings in a Specified Namespace

#### Function

This API is used to list or watch objects of kind RoleBinding

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /apis/rbac.authorization.k8s.io/v1/namespaces/{namespace}/rolebindings

**Table 5-4149** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-4150** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-4151** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-4152** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.rbac.v1.RoleBinding</a> objects	Items is a list of RoleBindings
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard object's metadata.

**Table 5-4153** io.k8s.api.rbac.v1.RoleBinding

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata.
roleRef	<a href="#">io.k8s.api.rbac.v1.RoleRef</a> object	RoleRef can reference a Role in the current namespace or a ClusterRole in the global namespace. If the RoleRef cannot be resolved, the Authorizer must return an error.
subjects	Array of <a href="#">io.k8s.api.rbac.v1.Subject</a> objects	Subjects holds references to the objects the role applies to.

**Table 5-4154** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>

Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.



Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4155** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4156** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4157** io.k8s.api.rbac.v1.RoleRef

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced
kind	String	Kind is the type of resource being referenced

Parameter	Type	Description
name	String	Name is the name of resource being referenced

**Table 5-4158** io.k8s.api.rbac.v1.Subject

Parameter	Type	Description
apiGroup	String	APIGroup holds the API group of the referenced subject. Defaults to "" for ServiceAccount subjects. Defaults to "rbac.authorization.k8s.io" for User and Group subjects.
kind	String	Kind of object being referenced. Values defined by this API group are "User", "Group", and "ServiceAccount". If the Authorizer does not recognized the kind value, the Authorizer should report an error.
name	String	Name of the object being referenced.
namespace	String	Namespace of the referenced object. If the object kind is non-namespace, such as "User" or "Group", and this value is not empty the Authorizer should report an error.

**Table 5-4159** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.

Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "rbac.authorization.k8s.io/v1",
  "items": [ {
    "metadata": {
      "creationTimestamp": "2018-11-27T03:29:52Z",
      "name": "read-pods",
      "namespace": "default",
      "resourceVersion": "16611",
```

```

"selfLink" : "/apis/rbac.authorization.k8s.io/v1/namespaces/default/rolebindings/secret-reader",
"uid" : "b3d1a49a-f1f4-11e8-b449-fa163ec24e06"
},
"roleRef" : {
"apiGroup" : "rbac.authorization.k8s.io",
"kind" : "Role",
"name" : "pod-reader"
},
"subjects" : [ {
"apiGroup" : "rbac.authorization.k8s.io",
"kind" : "User",
"name" : "jane"
} ]
}],
"kind" : "RoleBindingList",
"metadata" : {
"resourceVersion" : "16611",
"selfLink" : "/apis/rbac.authorization.k8s.io/v1/namespaces/default/rolebindings"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.18.2 Creating a RoleBinding

### Function

This API is used to create a RoleBinding



## Calling Method

For details, see [Calling APIs](#).

## URI

POST /apis/rbac.authorization.k8s.io/v1/namespaces/{namespace}/rolebindings

**Table 5-4160** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-4161** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-4162** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-4163** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata.

Parameter	Mandatory	Type	Description
roleRef	Yes	<a href="#">io.k8s.api.rbac.v1.RoleRef</a> object	RoleRef can reference a Role in the current namespace or a ClusterRole in the global namespace. If the RoleRef cannot be resolved, the Authorizer must return an error.
subjects	No	Array of <a href="#">io.k8s.api.rbac.v1.Subject</a> objects	Subjects holds references to the objects the role applies to.

**Table 5-4164** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Mandatory	Type	Description
creationTimestamp	No	String	<p>CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.</p> <p>Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>
deletionGracePeriodSeconds	No	Long	<p>Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.</p>

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>



Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-4165** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4166** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4167** io.k8s.api.rbac.v1.RoleRef

Parameter	Mandatory	Type	Description
apiGroup	Yes	String	APIGroup is the group for the resource being referenced
kind	Yes	String	Kind is the type of resource being referenced
name	Yes	String	Name is the name of resource being referenced

**Table 5-4168** io.k8s.api.rbac.v1.Subject

Parameter	Mandatory	Type	Description
apiGroup	No	String	APIGroup holds the API group of the referenced subject. Defaults to "" for ServiceAccount subjects. Defaults to "rbac.authorization.k8s.io" for User and Group subjects.
kind	Yes	String	Kind of object being referenced. Values defined by this API group are "User", "Group", and "ServiceAccount". If the Authorizer does not recognize the kind value, the Authorizer should report an error.
name	Yes	String	Name of the object being referenced.
namespace	No	String	Namespace of the referenced object. If the object kind is non-namespace, such as "User" or "Group", and this value is not empty the Authorizer should report an error.

## Response Parameters

Status code: 200

**Table 5-4169** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata.
roleRef	<a href="#">io.k8s.api.rbac.v1.RoleRef</a> object	RoleRef can reference a Role in the current namespace or a ClusterRole in the global namespace. If the RoleRef cannot be resolved, the Authorizer must return an error.
subjects	Array of <a href="#">io.k8s.api.rbac.v1.Subject</a> objects	Subjects holds references to the objects the role applies to.

**Table 5-4170** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.
generateName	String	GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.  If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).  Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a>
generation	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.



Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4171** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4172** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4173** io.k8s.api.rbac.v1.RoleRef

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced
kind	String	Kind is the type of resource being referenced

Parameter	Type	Description
name	String	Name is the name of resource being referenced

**Table 5-4174** io.k8s.api.rbac.v1.Subject

Parameter	Type	Description
apiGroup	String	APIGroup holds the API group of the referenced subject. Defaults to "" for ServiceAccount subjects. Defaults to "rbac.authorization.k8s.io" for User and Group subjects.
kind	String	Kind of object being referenced. Values defined by this API group are "User", "Group", and "ServiceAccount". If the Authorizer does not recognized the kind value, the Authorizer should report an error.
name	String	Name of the object being referenced.
namespace	String	Namespace of the referenced object. If the object kind is non-namespace, such as "User" or "Group", and this value is not empty the Authorizer should report an error.

**Status code: 201**

**Table 5-4175** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata.
roleRef	<a href="#">io.k8s.api.rbac.v1.RoleRef</a> object	RoleRef can reference a Role in the current namespace or a ClusterRole in the global namespace. If the RoleRef cannot be resolved, the Authorizer must return an error.
subjects	Array of <a href="#">io.k8s.api.rbac.v1.Subject</a> objects	Subjects holds references to the objects the role applies to.

**Table 5-4176** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-4177** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>



Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4178** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4179** io.k8s.api.rbac.v1.RoleRef

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced
kind	String	Kind is the type of resource being referenced

Parameter	Type	Description
name	String	Name is the name of resource being referenced

**Table 5-4180** io.k8s.api.rbac.v1.Subject

Parameter	Type	Description
apiGroup	String	APIGroup holds the API group of the referenced subject. Defaults to "" for ServiceAccount subjects. Defaults to "rbac.authorization.k8s.io" for User and Group subjects.
kind	String	Kind of object being referenced. Values defined by this API group are "User", "Group", and "ServiceAccount". If the Authorizer does not recognized the kind value, the Authorizer should report an error.
name	String	Name of the object being referenced.
namespace	String	Namespace of the referenced object. If the object kind is non-namespace, such as "User" or "Group", and this value is not empty the Authorizer should report an error.

**Status code: 202**

**Table 5-4181** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata.
roleRef	<a href="#">io.k8s.api.rbac.v1.RoleRef</a> object	RoleRef can reference a Role in the current namespace or a ClusterRole in the global namespace. If the RoleRef cannot be resolved, the Authorizer must return an error.
subjects	Array of <a href="#">io.k8s.api.rbac.v1.Subject</a> objects	Subjects holds references to the objects the role applies to.

**Table 5-4182** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-4183** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4184** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4185** io.k8s.api.rbac.v1.RoleRef

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced
kind	String	Kind is the type of resource being referenced



Parameter	Type	Description
name	String	Name is the name of resource being referenced

**Table 5-4186** io.k8s.api.rbac.v1.Subject

Parameter	Type	Description
apiGroup	String	APIGroup holds the API group of the referenced subject. Defaults to "" for ServiceAccount subjects. Defaults to "rbac.authorization.k8s.io" for User and Group subjects.
kind	String	Kind of object being referenced. Values defined by this API group are "User", "Group", and "ServiceAccount". If the Authorizer does not recognized the kind value, the Authorizer should report an error.
name	String	Name of the object being referenced.
namespace	String	Namespace of the referenced object. If the object kind is non-namespace, such as "User" or "Group", and this value is not empty the Authorizer should report an error.

## Example Requests

Creating a RoleBinding to bind the user group in namespace **rbac-test** to ClusterRole **view**

```
{
  "apiVersion": "rbac.authorization.k8s.io/v1",
  "kind": "RoleBinding",
  "metadata": {
    "name": "clusterrole_view_User_07b82a44a680d5661f01c00b448f8f50",
    "namespace": "rbac-test"
  },
  "roleRef": {
    "apiGroup": "rbac.authorization.k8s.io",
    "kind": "ClusterRole",
    "name": "view"
  },
  "subjects": [ {
    "apiGroup": "rbac.authorization.k8s.io",
    "kind": "User",
    "name": "07b82a44a680d5661f01c00b448f8f50"
  } ]
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "rbac.authorization.k8s.io/v1",
  "kind": "RoleBinding",
  "metadata": {
    "creationTimestamp": "2020-04-07T08:25:46Z",
    "name": "clusterrole_view_User_07b82a44a680d5661f01c00b448f8f50",
    "namespace": "rbac-test",
    "resourceVersion": "230511279",
    "selfLink": "/apis/rbac.authorization.k8s.io/v1/namespaces/rbac-test/rolebindings/clusterrole_view_User_07b82a44a680d5661f01c00b448f8f50",
    "uid": "6163c216-78a9-11ea-bcc5-340a9837e2a7"
  },
  "roleRef": {
    "apiGroup": "rbac.authorization.k8s.io",
    "kind": "ClusterRole",
    "name": "view"
  },
  "subjects": [ {
    "apiGroup": "rbac.authorization.k8s.io",
    "kind": "User",
    "name": "07b82a44a680d5661f01c00b448f8f50"
  } ]
}
```

## Status Codes

Status Code	Description
200	OK
201	Created
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	AlreadyExists
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.18.3 Deleting a RoleBinding

### Function

This API is used to delete a RoleBinding

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /apis/rbac.authorization.k8s.io/v1/namespaces/{namespace}/rolebindings/{name}

**Table 5-4187** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the RoleBinding
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-4188** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

Table 5-4189 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-4190** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.

Parameter	Mandatory	Type	Description
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-4191** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

Status code: 200

**Table 5-4192** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-4193** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>



**Table 5-4194** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-4195** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.

Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

**Status code: 202**

**Table 5-4196** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-4197** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.

Parameter	Type	Description
kind	String	The kind attribute of the resource associated with the status <code>StatusReason</code> . On some operations may differ from the requested resource <code>Kind</code> . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status <code>StatusReason</code> (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4198** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-4199** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "v1",
  "details": {
    "group": "rbac.authorization.k8s.io",
    "kind": "rolebindings",
    "name": "read-pods",
    "uid": "b3d1a49a-f1f4-11e8-b449-fa163ec24e06"
  },
  "kind": "Status",
  "metadata": { },
  "status": "Success"
}
```

## Status Codes

Status Code	Description
200	OK
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.18.4 Querying a RoleBinding

### Function

This API is used to read the specified RoleBinding

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/rbac.authorization.k8s.io/v1/namespaces/{namespace}/rolebindings/{name}

**Table 5-4200** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the RoleBinding
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-4201** Query Parameters

Parameter	Mandatory	Type	Description
pretty	No	String	If 'true', then the output is pretty printed.

### Request Parameters

**Table 5-4202** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

### Response Parameters

**Status code: 200**

**Table 5-4203** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata.
roleRef	<a href="#">io.k8s.api.rbac.v1.RoleRef</a> object	RoleRef can reference a Role in the current namespace or a ClusterRole in the global namespace. If the RoleRef cannot be resolved, the Authorizer must return an error.
subjects	Array of <a href="#">io.k8s.api.rbac.v1.Subject</a> objects	Subjects holds references to the objects the role applies to.

**Table 5-4204** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>



Parameter	Type	Description
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4205** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4206** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4207** io.k8s.api.rbac.v1.RoleRef

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced
kind	String	Kind is the type of resource being referenced

Parameter	Type	Description
name	String	Name is the name of resource being referenced

**Table 5-4208** io.k8s.api.rbac.v1.Subject

Parameter	Type	Description
apiGroup	String	APIGroup holds the API group of the referenced subject. Defaults to "" for ServiceAccount subjects. Defaults to "rbac.authorization.k8s.io" for User and Group subjects.
kind	String	Kind of object being referenced. Values defined by this API group are "User", "Group", and "ServiceAccount". If the Authorizer does not recognized the kind value, the Authorizer should report an error.
name	String	Name of the object being referenced.
namespace	String	Namespace of the referenced object. If the object kind is non-namespace, such as "User" or "Group", and this value is not empty the Authorizer should report an error.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "rbac.authorization.k8s.io/v1",
  "kind": "RoleBinding",
  "metadata": {
    "creationTimestamp": "2020-04-07T08:25:46Z",
    "name": "clusterrole_view_User_07b82a44a680d5661f01c00b448f8f50",
    "namespace": "rbac-test",
    "resourceVersion": "230511279",
    "selfLink": "/apis/rbac.authorization.k8s.io/v1/namespaces/rbac-test/rolebindings/clusterrole_view_User_07b82a44a680d5661f01c00b448f8f50",
    "uid": "6163c216-78a9-11ea-bcc5-340a9837e2a7"
  },
  "roleRef": {
    "apiGroup": "rbac.authorization.k8s.io",
    "kind": "ClusterRole",
    "name": "view"
  },
  "subjects": [ {
```

```
"apiGroup" : "rbac.authorization.k8s.io",  
"kind" : "User",  
"name" : "07b82a44a680d5661f01c00b448f8f50"  
}]  
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.18.5 Updating a RoleBinding

### Function

This API is used to partially update the specified RoleBinding

### Calling Method

For details, see [Calling APIs](#).

### URI

```
PATCH /apis/rbac.authorization.k8s.io/v1/namespaces/{namespace}/rolebindings/  
{name}
```



**Table 5-4209** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the RoleBinding
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-4210** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> . This field is required for apply requests (application/apply-patch) but optional for non-apply patch types (JsonPatch, MergePatch, StrategicMergePatch).
force	No	Boolean	Force is going to "force" Apply requests. It means user will re-acquire conflicting fields owned by other people. Force flag must be unset for non-apply patch requests.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

Table 5-4211 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	<p>Currently, three types of patch request methods are supported. For details, see "Update API Objects in Place Using kubectl patch" (<a href="https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/">https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/</a>).</p> <ul style="list-style-type: none"> <li>• <b>Json Patch, Content-Type: application/json-patch+json</b> As defined in RFC6902, Json Patch contains a series of operations on a JSON object. After receiving the object, the server applies the represented operations to the JSON object.</li> <li>• <b>Merge Patch, Content-Type: application/merge-patch+json</b> According to RFC 7386, Merge Patch contains some description of a JSON object. The JSON object is submitted to the server end and merges with the current object of the server end, which means to replace the list field of the current resource object to form a new object.</li> <li>• <b>Strategic Merge Patch, Content-Type: application/strategic-merge-patch+json</b> Strategic Merge Patch is used to add legal metadata to API objects and uses new metadata to determine which lists should be merged and which ones should not. The current metadata is used as the structure labels.</li> </ul>

**Table 5-4212** Request body parameters

Parameter	Mandatory	Type	Description
-	Yes	Object	Patch is provided to give a concrete name and type to the Kubernetes PATCH request body.

## Response Parameters

Status code: 200

**Table 5-4213** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata.
roleRef	<a href="#">io.k8s.api.rbac.v1.RoleRef</a> object	RoleRef can reference a Role in the current namespace or a ClusterRole in the global namespace. If the RoleRef cannot be resolved, the Authorizer must return an error.
subjects	Array of <a href="#">io.k8s.api.rbac.v1.Subject</a> objects	Subjects holds references to the objects the role applies to.

**Table 5-4214** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.



Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-4215** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4216** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4217** io.k8s.api.rbac.v1.RoleRef

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced
kind	String	Kind is the type of resource being referenced

Parameter	Type	Description
name	String	Name is the name of resource being referenced

**Table 5-4218** io.k8s.api.rbac.v1.Subject

Parameter	Type	Description
apiGroup	String	APIGroup holds the API group of the referenced subject. Defaults to "" for ServiceAccount subjects. Defaults to "rbac.authorization.k8s.io" for User and Group subjects.
kind	String	Kind of object being referenced. Values defined by this API group are "User", "Group", and "ServiceAccount". If the Authorizer does not recognized the kind value, the Authorizer should report an error.
name	String	Name of the object being referenced.
namespace	String	Namespace of the referenced object. If the object kind is non-namespace, such as "User" or "Group", and this value is not empty the Authorizer should report an error.

## Example Requests

### Updating a RoleBinding

```
{
  "roleRef": {
    "apiGroup": "rbac.authorization.k8s.io",
    "kind": "ClusterRole",
    "name": "view"
  },
  "subjects": [ {
    "apiGroup": "rbac.authorization.k8s.io",
    "kind": "User",
    "name": "07b82a44a680d5661f01c00b448f8f50"
  }, {
    "apiGroup": "rbac.authorization.k8s.io",
    "kind": "Group",
    "name": "07b8387fd080d2963f92c00bb9a7341e"
  } ]
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "rbac.authorization.k8s.io/v1",
```

```

"kind" : "RoleBinding",
"metadata" : {
  "creationTimestamp" : "2020-04-07T08:25:46Z",
  "name" : "clusterrole_view_User_07b82a44a680d5661f01c00b448f8f50",
  "namespace" : "rbac-test",
  "resourceVersion" : "230608015",
  "selfLink" : "/apis/rbac.authorization.k8s.io/v1/namespaces/rbac-test/rolebindings/clusterrole_view_User_07b82a44a680d5661f01c00b448f8f50",
  "uid" : "6163c216-78a9-11ea-bcc5-340a9837e2a7"
},
"roleRef" : {
  "apiGroup" : "rbac.authorization.k8s.io",
  "kind" : "ClusterRole",
  "name" : "view"
},
"subjects" : [ {
  "apiGroup" : "rbac.authorization.k8s.io",
  "kind" : "User",
  "name" : "07b82a44a680d5661f01c00b448f8f50"
}, {
  "apiGroup" : "rbac.authorization.k8s.io",
  "kind" : "Group",
  "name" : "07b8387fd080d2963f92c00bb9a7341e"
} ]
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.18.6 Replacing a RoleBinding

### Function

This API is used to replace the specified RoleBinding

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /apis/rbac.authorization.k8s.io/v1/namespaces/{namespace}/rolebindings/{name}

**Table 5-4219** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the RoleBinding
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-4220** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-4221** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-4222** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata.

Parameter	Mandatory	Type	Description
roleRef	Yes	<a href="#">io.k8s.api.rbac.v1.RoleRef</a> object	RoleRef can reference a Role in the current namespace or a ClusterRole in the global namespace. If the RoleRef cannot be resolved, the Authorizer must return an error.
subjects	No	Array of <a href="#">io.k8s.api.rbac.v1.Subject</a> objects	Subjects holds references to the objects the role applies to.

**Table 5-4223** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Mandatory	Type	Description
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.



Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-4224** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4225** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4226** io.k8s.api.rbac.v1.RoleRef

Parameter	Mandatory	Type	Description
apiGroup	Yes	String	APIGroup is the group for the resource being referenced
kind	Yes	String	Kind is the type of resource being referenced
name	Yes	String	Name is the name of resource being referenced

**Table 5-4227** io.k8s.api.rbac.v1.Subject

Parameter	Mandatory	Type	Description
apiGroup	No	String	APIGroup holds the API group of the referenced subject. Defaults to "" for ServiceAccount subjects. Defaults to "rbac.authorization.k8s.io" for User and Group subjects.
kind	Yes	String	Kind of object being referenced. Values defined by this API group are "User", "Group", and "ServiceAccount". If the Authorizer does not recognize the kind value, the Authorizer should report an error.
name	Yes	String	Name of the object being referenced.
namespace	No	String	Namespace of the referenced object. If the object kind is non-namespace, such as "User" or "Group", and this value is not empty the Authorizer should report an error.

## Response Parameters

Status code: 200

**Table 5-4228** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>



Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata.
roleRef	<a href="#">io.k8s.api.rbac.v1.RoleRef</a> object	RoleRef can reference a Role in the current namespace or a ClusterRole in the global namespace. If the RoleRef cannot be resolved, the Authorizer must return an error.
subjects	Array of <a href="#">io.k8s.api.rbac.v1.Subject</a> objects	Subjects holds references to the objects the role applies to.

**Table 5-4229** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed.</p> <p>Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4230** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4231** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4232** io.k8s.api.rbac.v1.RoleRef

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced
kind	String	Kind is the type of resource being referenced

Parameter	Type	Description
name	String	Name is the name of resource being referenced

**Table 5-4233** io.k8s.api.rbac.v1.Subject

Parameter	Type	Description
apiGroup	String	APIGroup holds the API group of the referenced subject. Defaults to "" for ServiceAccount subjects. Defaults to "rbac.authorization.k8s.io" for User and Group subjects.
kind	String	Kind of object being referenced. Values defined by this API group are "User", "Group", and "ServiceAccount". If the Authorizer does not recognized the kind value, the Authorizer should report an error.
name	String	Name of the object being referenced.
namespace	String	Namespace of the referenced object. If the object kind is non-namespace, such as "User" or "Group", and this value is not empty the Authorizer should report an error.

**Status code: 201**

**Table 5-4234** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata.
roleRef	<a href="#">io.k8s.api.rbac.v1.RoleRef</a> object	RoleRef can reference a Role in the current namespace or a ClusterRole in the global namespace. If the RoleRef cannot be resolved, the Authorizer must return an error.
subjects	Array of <a href="#">io.k8s.api.rbac.v1.Subject</a> objects	Subjects holds references to the objects the role applies to.

**Table 5-4235** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>



Parameter	Type	Description
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-4236** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4237** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4238** io.k8s.api.rbac.v1.RoleRef

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced
kind	String	Kind is the type of resource being referenced

Parameter	Type	Description
name	String	Name is the name of resource being referenced

**Table 5-4239** io.k8s.api.rbac.v1.Subject

Parameter	Type	Description
apiGroup	String	APIGroup holds the API group of the referenced subject. Defaults to "" for ServiceAccount subjects. Defaults to "rbac.authorization.k8s.io" for User and Group subjects.
kind	String	Kind of object being referenced. Values defined by this API group are "User", "Group", and "ServiceAccount". If the Authorizer does not recognized the kind value, the Authorizer should report an error.
name	String	Name of the object being referenced.
namespace	String	Namespace of the referenced object. If the object kind is non-namespace, such as "User" or "Group", and this value is not empty the Authorizer should report an error.

## Example Requests

### Replacing a RoleBinding

```
{
  "apiVersion": "rbac.authorization.k8s.io/v1",
  "kind": "RoleBinding",
  "metadata": {
    "creationTimestamp": "2020-04-07T08:25:46Z",
    "name": "clusterrole_view_User_07b82a44a680d5661f01c00b448f8f50",
    "namespace": "rbac-test",
    "resourceVersion": "230608015",
    "selfLink": "/apis/rbac.authorization.k8s.io/v1/namespaces/rbac-test/rolebindings/clusterrole_view_User_07b82a44a680d5661f01c00b448f8f50",
    "uid": "6163c216-78a9-11ea-bcc5-340a9837e2a7"
  },
  "roleRef": {
    "apiGroup": "rbac.authorization.k8s.io",
    "kind": "ClusterRole",
    "name": "view"
  },
  "subjects": [ {
    "apiGroup": "rbac.authorization.k8s.io",
    "kind": "User",
    "name": "07b82a44a680d5661f01c00b448f8f50"
  } ]
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "rbac.authorization.k8s.io/v1",
  "kind": "RoleBinding",
  "metadata": {
    "creationTimestamp": "2020-04-07T08:25:46Z",
    "name": "clusterrole_view_User_07b82a44a680d5661f01c00b448f8f50",
    "namespace": "rbac-test",
    "resourceVersion": "230609819",
    "selfLink": "/apis/rbac.authorization.k8s.io/v1/namespaces/rbac-test/rolebindings/clusterrole_view_User_07b82a44a680d5661f01c00b448f8f50",
    "uid": "6163c216-78a9-11ea-bcc5-340a9837e2a7"
  },
  "roleRef": {
    "apiGroup": "rbac.authorization.k8s.io",
    "kind": "ClusterRole",
    "name": "view"
  },
  "subjects": [ {
    "apiGroup": "rbac.authorization.k8s.io",
    "kind": "User",
    "name": "07b82a44a680d5661f01c00b448f8f50"
  } ]
}
```

## Status Codes

Status Code	Description
200	OK
201	Created
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable

Status Code	Description
504	ServerTimeout

## 5.18.7 Listing RoleBindings

### Function

This API is used to list or watch objects of kind RoleBinding

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/rbac.authorization.k8s.io/v1/rolebindings

**Table 5-4240** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.



Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>
pretty	No	String	If 'true', then the output is pretty printed.

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.

## Request Parameters

**Table 5-4241** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

Table 5-4242 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.rbac.v1.RoleBinding</a> objects	Items is a list of RoleBindings
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard object's metadata.

Table 5-4243 io.k8s.api.rbac.v1.RoleBinding

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata.
roleRef	<a href="#">io.k8s.api.rbac.v1.RoleRef</a> object	RoleRef can reference a Role in the current namespace or a ClusterRole in the global namespace. If the RoleRef cannot be resolved, the Authorizer must return an error.
subjects	Array of <a href="#">io.k8s.api.rbac.v1.Subject</a> objects	Subjects holds references to the objects the role applies to.

**Table 5-4244** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.



Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-4245** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4246** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4247** io.k8s.api.rbac.v1.RoleRef

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced
kind	String	Kind is the type of resource being referenced

Parameter	Type	Description
name	String	Name is the name of resource being referenced

**Table 5-4248** io.k8s.api.rbac.v1.Subject

Parameter	Type	Description
apiGroup	String	APIGroup holds the API group of the referenced subject. Defaults to "" for ServiceAccount subjects. Defaults to "rbac.authorization.k8s.io" for User and Group subjects.
kind	String	Kind of object being referenced. Values defined by this API group are "User", "Group", and "ServiceAccount". If the Authorizer does not recognized the kind value, the Authorizer should report an error.
name	String	Name of the object being referenced.
namespace	String	Namespace of the referenced object. If the object kind is non-namespace, such as "User" or "Group", and this value is not empty the Authorizer should report an error.

**Table 5-4249** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.

Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "rbac.authorization.k8s.io/v1",
  "items": [ {
    "metadata": {
      "creationTimestamp": "2020-04-07T08:24:24Z",
      "name": "clusterrole_cluster-admin_User_456b80acdfd1471e8a7fbc0019825124",
      "namespace": "rbac-test",
      "resourceVersion": "230509842",
```

```

"selfLink" : "/apis/rbac.authorization.k8s.io/v1/namespaces/rbac-test/rolebindings/clusterrole_cluster-admin_User_456b80acdf1471e8a7fbc0019825124",
"uid" : "303fcfde-78a9-11ea-83a1-340a9837e413"
},
"roleRef" : {
"apiGroup" : "rbac.authorization.k8s.io",
"kind" : "ClusterRole",
"name" : "cluster-admin"
},
"subjects" : [ {
"apiGroup" : "rbac.authorization.k8s.io",
"kind" : "User",
"name" : "456b80acdf1471e8a7fbc0019825124"
} ]
}, {
"metadata" : {
"creationTimestamp" : "2020-04-07T08:25:46Z",
"name" : "clusterrole_view_User_07b82a44a680d5661f01c00b448f8f50",
"namespace" : "rbac-test",
"resourceVersion" : "230511279",
"selfLink" : "/apis/rbac.authorization.k8s.io/v1/namespaces/rbac-test/rolebindings/clusterrole_view_User_07b82a44a680d5661f01c00b448f8f50",
"uid" : "6163c216-78a9-11ea-bcc5-340a9837e2a7"
},
"roleRef" : {
"apiGroup" : "rbac.authorization.k8s.io",
"kind" : "ClusterRole",
"name" : "view"
},
"subjects" : [ {
"apiGroup" : "rbac.authorization.k8s.io",
"kind" : "User",
"name" : "07b82a44a680d5661f01c00b448f8f50"
} ]
}],
"kind" : "RoleBindingList",
"metadata" : {
"resourceVersion" : "230535192",
"selfLink" : "/apis/rbac.authorization.k8s.io/v1/namespaces/rbac-test/rolebindings"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType

Status Code	Description
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.19 StatefulSet

### 5.19.1 Deleting StatefulSets in a Namespace

#### Function

This API is used to delete all StatefulSets in a specified namespace.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

DELETE /apis/apps/v1/namespaces/{namespace}/statefulsets

**Table 5-4250** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-4251** Query Parameters

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.



Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset

Parameter	Mandatory	Type	Description
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-4252** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-4253** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-4254** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

**Status code: 200**

**Table 5-4255** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-4256** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4257** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional.  Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"

Parameter	Type	Description
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-4258** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.



Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

- Deleting only the StatefulSets (The pods are not deleted.)

```
{
  "Kind": "DeleteOptions",
  "apiVersion": "v1",
  "propagationPolicy": "Orphan"
}
```

- Deleting the pods and then the StatefulSets

```
{
  "apiVersion": "v1",
  "kind": "DeleteOptions",
  "propagationPolicy": "Foreground"
}
```

- Deleting the StatefulSets and then the pods

```
{
  "apiVersion": "v1",
  "kind": "DeleteOptions",
  "propagationPolicy": "Background"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "apps/v1",
  "items": null,
  "kind": "StatefulSetList",
  "metadata": {
    "resourceVersion": "5257614",
    "selfLink": "/apis/apps/v1/namespaces/namespace-test/statefulsets"
  }
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.19.2 Querying StatefulSets in a Namespace

### Function

This API is used to query the details about all StatefulSets in a specified namespace.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/apps/v1/namespaces/{namespace}/statefulsets

**Table 5-4259** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-4260** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-4261** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-4262** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.apps.v1.StatefulSet</a> objects	StatefulSet represents a set of pods with consistent identities. Identities are defined as: <ul style="list-style-type: none"> <li>• Network: A single stable DNS and hostname.</li> <li>• Storage: As many VolumeClaims as requested. The StatefulSet guarantees that a given network identity will always map to the same storage identity.</li> </ul>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	ListMeta describes metadata that synthetic resources must have, including lists and various status objects. A resource may have only one of {ObjectMeta, ListMeta}.

**Table 5-4263** io.k8s.api.apps.v1.StatefulSet

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	<a href="#">io.k8s.api.apps.v1.StatefulSetSpec</a> object	Spec defines the desired identities of pods in this set.
status	<a href="#">io.k8s.api.apps.v1.StatefulSetStatus</a> object	Status is the current status of Pods in this StatefulSet. This data may be out of date by some window of time.

**Table 5-4264** io.k8s.api.apps.v1.StatefulSetSpec

Parameter	Type	Description
podManagementPolicy	String	podManagementPolicy controls how pods are created during initial scale up, when replacing pods on nodes, or when scaling down. The default policy is <i>OrderedReady</i> , where pods are created in increasing order (pod-0, then pod-1, etc) and the controller will wait until each pod is ready before continuing. When scaling down, the pods are removed in the opposite order. The alternative policy is <i>Parallel</i> which will create pods in parallel to match the desired scale without waiting, and on scale down will delete all pods at once.



Parameter	Type	Description
replicas	Integer	replicas is the desired number of replicas of the given Template. These are replicas in the sense that they are instantiations of the same Template, but individual replicas also have a consistent identity. If unspecified, defaults to 1.
revisionHistoryLimit	Integer	revisionHistoryLimit is the maximum number of revisions that will be maintained in the StatefulSet's revision history. The revision history consists of all revisions not represented by a currently applied StatefulSetSpec version. The default value is 10.
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	selector is a label query over pods that should match the replica count. It must match the pod template's labels. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>
serviceName	String	serviceName is the name of the service that governs this StatefulSet. This service must exist before the StatefulSet, and is responsible for the network identity of the set. Pods get DNS/hostnames that follow the pattern: pod-specific-string.serviceName.default.svc.cluster.local where "pod-specific-string" is managed by the StatefulSet controller.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	template is the object that describes the pod that will be created if insufficient replicas are detected. Each pod stamped out by the StatefulSet will fulfill this Template, but have a unique identity from the rest of the StatefulSet.
updateStrategy	<a href="#">io.k8s.api.apps.v1.StatefulSetUpdateStrategy</a> object	updateStrategy indicates the StatefulSetUpdateStrategy that will be employed to update Pods in the StatefulSet when a revision is made to Template.
volumeClaimTemplates	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> objects	volumeClaimTemplates is a list of claims that pods are allowed to reference. The StatefulSet controller is responsible for mapping network identities to claims in a way that maintains the identity of a pod. Every claim in this list must have at least one matching (by name) volumeMount in one container in the template. A claim in this list takes precedence over any volumes in the template, with the same name.

**Table 5-4265** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-4266** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.

Parameter	Type	Description
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAlias</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>

Parameter	Type	Description
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	nodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/apis/core.v1/#pod-readiness-gate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-4267** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-4268** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringSchedulingIgnoredDuringExecution affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-4269** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.



Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-4270** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-4271** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-4272** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-4273** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-4274** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-4275** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-4276** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-4277** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-4278** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-4279** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-4280** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-4281** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>



**Table 5-4282** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-4283** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-4284** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-4285** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-4286** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-4287** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-4288** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-4289** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-4290** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-4291** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-4292** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-4293** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.



Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4294** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-4295** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-4296** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-4297** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-4298** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-4299** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-4300** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-4301** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'. Must not contain '..'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-4302** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-4303** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-4304** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-4305** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4306** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-4307** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-4308** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-4309** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.



**Table 5-4310** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-4311** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-4312** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-4313** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-4314** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-4315** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-4316** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>



**Table 5-4317** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-4318** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-4319** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-4320** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-4321** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-4322** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-4323** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-4324** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-4325** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-4326** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-4327** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-4328** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-4329** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-4330** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-4331** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).



**Table 5-4332** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p> ::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-4333** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-4334** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-4335** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-4336** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-4337** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-4338** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-4339** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-4340** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-4341** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-4342** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-4343** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-4344** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-4345** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-4346** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-4347** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-4348** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.



Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-4349** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-4350** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-4351** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-4352** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-4353** io.k8s.api.apps.v1.StatefulSetUpdateStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy</a> object	RollingUpdate is used to communicate parameters when Type is RollingUpdateStatefulSetStrategyType.
type	String	Type indicates the type of the StatefulSetUpdateStrategy. Default is RollingUpdate.

**Table 5-4354** io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy

Parameter	Type	Description
partition	Integer	Partition indicates the ordinal at which the StatefulSet should be partitioned. Default value is 0.

**Table 5-4355** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-4356** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.
generateName	String	GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.  If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).  Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a>
generation	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-4357** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>



Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4358** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4359** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-4360** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-4361** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-4362** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-4363** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-4364** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-4365** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Table 5-4366** io.k8s.api.apps.v1.StatefulSetStatus

Parameter	Type	Description
collisionCount	Integer	collisionCount is the count of hash collisions for the StatefulSet. The StatefulSet controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ControllerRevision.
conditions	Array of <a href="#">io.k8s.api.apps.v1.StatefulSetCondition</a> objects	Represents the latest available observations of a statefulset's current state.
currentReplicas	Integer	currentReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by currentRevision.
currentRevision	String	currentRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [0,currentReplicas).
observedGeneration	Long	observedGeneration is the most recent generation observed for this StatefulSet. It corresponds to the StatefulSet's generation, which is updated on mutation by the API Server.
readyReplicas	Integer	readyReplicas is the number of Pods created by the StatefulSet controller that have a Ready Condition.
replicas	Integer	replicas is the number of Pods created by the StatefulSet controller.
updateRevision	String	updateRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [replicas-updatedReplicas,replicas)

Parameter	Type	Description
updatedReplicas	Integer	updatedReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by updateRevision.

**Table 5-4367** io.k8s.api.apps.v1.StatefulSetCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of statefulset condition.

**Table 5-4368** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.

Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "apps/v1",
  "items": [ {
    "metadata": {
      "creationTimestamp": "2018-09-04T07:13:00Z",
      "generation": 1,
      "labels": {
        "app": "statefulset-test"
      }
    }
  }
]
```

```
    },
    "name": "statefulset-test",
    "namespace": "namespace-test",
    "resourceVersion": "5209881",
    "selfLink": "/apis/apps/v1/namespaces/namespace-test/statefulsets/statefulset-test",
    "uid": "f4a35f35-b011-11e8-b6ef-f898ef6c78b4"
  },
  "spec": {
    "podManagementPolicy": "OrderedReady",
    "replicas": 3,
    "revisionHistoryLimit": 10,
    "selector": {
      "matchLabels": {
        "app": "statefulset-test"
      }
    }
  },
  "serviceName": "",
  "template": {
    "metadata": {
      "annotations": {
        "cri.cci.io/container-type": "secure-container"
      },
      "creationTimestamp": null,
      "labels": {
        "app": "statefulset-test"
      }
    },
    "spec": {
      "containers": [ {
        "image": "redis",
        "imagePullPolicy": "IfNotPresent",
        "name": "container-0",
        "resources": {
          "limits": {
            "cpu": "500m",
            "memory": "1Gi"
          },
          "requests": {
            "cpu": "500m",
            "memory": "1Gi"
          }
        }
      }
    ],
    "terminationMessagePath": "/dev/termination-log",
    "terminationMessagePolicy": "File"
  } ],
  "dnsPolicy": "ClusterFirst",
  "imagePullSecrets": [ {
    "name": "imagepull-secret"
  } ],
  "restartPolicy": "Always",
  "schedulerName": "default-scheduler",
  "securityContext": { }
}
},
"updateStrategy": {
  "type": "OnDelete"
}
},
"status": {
  "collisionCount": 0,
  "currentReplicas": 3,
  "currentRevision": "statefulset-test-f986b645b",
  "observedGeneration": 1,
  "readyReplicas": 2,
  "replicas": 3,
  "updateRevision": "statefulset-test-f986b645b"
}
} ],
"kind": "StatefulSetList",
```



```
"metadata" : {  
  "resourceVersion" : "5215730",  
  "selfLink" : "/apis/apps/v1/namespaces/namespace-test/statefulsets"  
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.19.3 Creating a StatefulSet

### Function

This API is used to create a StatefulSet.

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /apis/apps/v1/namespaces/{namespace}/statefulsets

**Table 5-4369** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-4370** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-4371** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-4372** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	No	<a href="#">io.k8s.api.apps.v1.StatefulSetSpec</a> object	Spec defines the desired identities of pods in this set.
status	No	<a href="#">io.k8s.api.apps.v1.StatefulSetStatus</a> object	Status is the current status of Pods in this StatefulSet. This data may be out of date by some window of time.

**Table 5-4373** io.k8s.api.apps.v1.StatefulSetSpec

Parameter	Mandatory	Type	Description
podManagementPolicy	No	String	podManagementPolicy controls how pods are created during initial scale up, when replacing pods on nodes, or when scaling down. The default policy is <i>OrderedReady</i> , where pods are created in increasing order (pod-0, then pod-1, etc) and the controller will wait until each pod is ready before continuing. When scaling down, the pods are removed in the opposite order. The alternative policy is <i>Parallel</i> which will create pods in parallel to match the desired scale without waiting, and on scale down will delete all pods at once.
replicas	No	Integer	replicas is the desired number of replicas of the given Template. These are replicas in the sense that they are instantiations of the same Template, but individual replicas also have a consistent identity. If unspecified, defaults to 1.
revisionHistoryLimit	No	Integer	revisionHistoryLimit is the maximum number of revisions that will be maintained in the StatefulSet's revision history. The revision history consists of all revisions not represented by a currently applied StatefulSetSpec version. The default value is 10.
selector	Yes	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	selector is a label query over pods that should match the replica count. It must match the pod template's labels. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>

Parameter	Mandatory	Type	Description
serviceName	Yes	String	serviceName is the name of the service that governs this StatefulSet. This service must exist before the StatefulSet, and is responsible for the network identity of the set. Pods get DNS/hostnames that follow the pattern: pod-specific-string.serviceName.default.svc.cluster.local where "pod-specific-string" is managed by the StatefulSet controller.
template	Yes	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	template is the object that describes the pod that will be created if insufficient replicas are detected. Each pod stamped out by the StatefulSet will fulfill this Template, but have a unique identity from the rest of the StatefulSet.
updateStrategy	No	<a href="#">io.k8s.api.apps.v1.StatefulSetUpdateStrategy</a> object	updateStrategy indicates the StatefulSetUpdateStrategy that will be employed to update Pods in the StatefulSet when a revision is made to Template.
volumeClaimTemplates	No	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> objects	volumeClaimTemplates is a list of claims that pods are allowed to reference. The StatefulSet controller is responsible for mapping network identities to claims in a way that maintains the identity of a pod. Every claim in this list must have at least one matching (by name) volumeMount in one container in the template. A claim in this list takes precedence over any volumes in the template, with the same name.

**Table 5-4374** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Mandatory	Type	Description
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-4375** io.k8s.api.core.v1.PodSpec

Parameter	Mandatory	Type	Description
activeDeadlineSeconds	No	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	No	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	No	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Yes	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	No	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.

Parameter	Mandatory	Type	Description
dnsPolicy	No	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	No	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	No	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	No	Array of <a href="#">io.k8s.api.core.v1.HostAlias</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	No	Boolean	Use the host's ipc namespace. Optional: Default to false.

Parameter	Mandatory	Type	Description
hostNetwork	No	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	No	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	No	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	No	Array of <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod</a>



Parameter	Mandatory	Type	Description
initContainers	No	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	No	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	No	Map<String,String>	nodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Mandatory	Type	Description
overhead	No	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	No	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.

Parameter	Mandatory	Type	Description
priority	No	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	No	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	No	Array of <a href="https://kubernetes.io/api-references/api-groups/generated/kubernetes.io/v1/#podreadinessgate-object">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	No	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>

Parameter	Mandatory	Type	Description
runtimeClassName	No	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	No	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	No	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	No	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	No	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>

Parameter	Mandatory	Type	Description
setHostnameAsFQDN	No	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	No	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	No	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.

Parameter	Mandatory	Type	Description
terminationGracePeriodSeconds	No	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	No	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	No	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	No	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-4376** io.k8s.api.core.v1.Affinity

Parameter	Mandatory	Type	Description
nodeAffinity	No	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Mandatory	Type	Description
podAffinity	No	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	No	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-4377** io.k8s.api.core.v1.NodeAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Mandatory	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	No	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-4378** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Mandatory	Type	Description
preference	Yes	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Yes	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-4379** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	No	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.



**Table 5-4380** io.k8s.api.core.v1.NodeSelector

Parameter	Mandatory	Type	Description
nodeSelectorTerms	Yes	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-4381** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	The label key that the selector applies to.
operator	Yes	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist, Gt, and Lt.
values	No	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-4382** io.k8s.api.core.v1.PodAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-4383** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-4384** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Mandatory	Type	Description
podAffinityTerm	Yes	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Yes	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-4385** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Mandatory	Type	Description
labelSelector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	No	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	Yes	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-4386** io.k8s.api.core.v1.PodDNSConfig

Parameter	Mandatory	Type	Description
nameservers	No	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	No	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	No	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-4387** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Mandatory	Type	Description
name	No	String	Required.
value	No	String	value is the value of the option

**Table 5-4388** io.k8s.api.core.v1.EphemeralContainer

Parameter	Mandatory	Type	Description
args	No	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	No	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	No	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.

Parameter	Mandatory	Type	Description
envFrom	No	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	No	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	No	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	No	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	Yes	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	No	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.

Parameter	Mandatory	Type	Description
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	No	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	No	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	No	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false



Parameter	Mandatory	Type	Description
targetContainerName	No	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	No	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	No	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	No	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Mandatory	Type	Description
volumeDevices	No	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	No	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	No	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-4389** io.k8s.api.core.v1.HostAlias

Parameter	Mandatory	Type	Description
hostnames	No	Array of strings	Hostnames for the above IP address.
ip	No	String	IP address of the host file entry.

**Table 5-4390** io.k8s.api.core.v1.LocalObjectReference

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-4391** io.k8s.api.core.v1.Container

Parameter	Mandatory	Type	Description
args	No	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	No	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	No	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.

Parameter	Mandatory	Type	Description
envFrom	No	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	No	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	No	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	No	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	No	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
securityContext	No	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>

Parameter	Mandatory	Type	Description
startupProbe	No	<a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	No	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	No	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false

Parameter	Mandatory	Type	Description
terminationMessagePath	No	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	No	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	No	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	No	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	No	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.

Parameter	Mandatory	Type	Description
workingDir	No	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-4392** io.k8s.api.core.v1.EnvVar

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	No	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".
valueFrom	No	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-4393** io.k8s.api.core.v1.EnvVarSource

Parameter	Mandatory	Type	Description
configMapKeyRef	No	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.



Parameter	Mandatory	Type	Description
fieldRef	No	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports metadata.name, metadata.namespace, <i>metadata.labels['&lt;KEY&gt;']</i> , <i>metadata.annotations['&lt;KEY&gt;']</i> , spec.nodeName, spec.serviceAccountName, status.hostIP, status.podIP, status.podIPs.
resourceFieldRef	No	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	No	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-4394** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Mandatory	Type	Description
key	Yes	String	The key to select.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-4395** io.k8s.api.core.v1.SecretKeySelector

Parameter	Mandatory	Type	Description
key	Yes	String	The key of the secret to select from. Must be a valid secret key.

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret or its key must be defined

**Table 5-4396** io.k8s.api.core.v1.EnvFromSource

Parameter	Mandatory	Type	Description
configMapRef	No	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	No	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	No	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-4397** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap must be defined

**Table 5-4398** io.k8s.api.core.v1.SecretEnvSource

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret must be defined

**Table 5-4399** io.k8s.api.core.v1.Lifecycle

Parameter	Mandatory	Type	Description
postStart	No	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

Parameter	Mandatory	Type	Description
preStop	No	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-4400** io.k8s.api.core.v1.Handler

Parameter	Mandatory	Type	Description
exec	No	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	No	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
tcpSocket	No	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-4401** io.k8s.api.core.v1.ContainerPort

Parameter	Mandatory	Type	Description
containerPort	Yes	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, $0 < x < 65536$ .
hostIP	No	String	What host IP to bind the external port to.
hostPort	No	Integer	Number of port to expose on the host. If specified, this must be a valid port number, $0 < x < 65536$ . If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	No	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	No	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-4402** io.k8s.api.core.v1.SecurityContext

Parameter	Mandatory	Type	Description
allowPrivilegeEscalation	No	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN

Parameter	Mandatory	Type	Description
capabilities	No	<a href="https://kubernetes.io/api-reference/v1/objects/capabilities">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	No	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.
procMount	No	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	No	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	No	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

Parameter	Mandatory	Type	Description
runAsUser	No	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	No	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	No	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.
windowsOptions	No	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4403** io.k8s.api.core.v1.Capabilities

Parameter	Mandatory	Type	Description
add	No	Array of strings	Added capabilities
drop	No	Array of strings	Removed capabilities

**Table 5-4404** io.k8s.api.core.v1.Probe

Parameter	Mandatory	Type	Description
exec	No	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	No	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	No	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	No	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	No	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	No	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.
tcpSocket	No	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	No	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>



**Table 5-4405** io.k8s.api.core.v1.ExecAction

Parameter	Mandatory	Type	Description
command	No	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-4406** io.k8s.api.core.v1.HTTPGetAction

Parameter	Mandatory	Type	Description
host	No	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	No	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	No	String	Path to access on the HTTP server.
port	Yes	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	No	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-4407** io.k8s.api.core.v1.HTTPHeader

Parameter	Mandatory	Type	Description
name	Yes	String	The header field name

Parameter	Mandatory	Type	Description
value	Yes	String	The header field value

**Table 5-4408** io.k8s.api.core.v1.TCPSocketAction

Parameter	Mandatory	Type	Description
host	No	String	Optional: Host name to connect to, defaults to the pod IP.
port	Yes	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-4409** io.k8s.api.core.v1.VolumeDevice

Parameter	Mandatory	Type	Description
devicePath	Yes	String	devicePath is the path inside of the container that the device will be mapped to.
name	Yes	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-4410** io.k8s.api.core.v1.VolumeMount

Parameter	Mandatory	Type	Description
extendPathMode	No	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	Yes	String	Path within the container at which the volume should be mounted. Must not contain '!'.

Parameter	Mandatory	Type	Description
mountPropagation	No	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	Yes	String	This must match the Name of a Volume.
policy	No	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	No	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	No	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	No	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$ (VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-4411** io.k8s.api.core.v1.Policy

Parameter	Mandatory	Type	Description
logs	No	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-4412** io.k8s.api.core.v1.Logs

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations for log.
rotate	Yes	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-4413** io.k8s.api.core.v1.PodReadinessGate

Parameter	Mandatory	Type	Description
conditionType	Yes	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-4414** io.k8s.api.core.v1.PodSecurityContext

Parameter	Mandatory	Type	Description
fsGroup	No	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>

Parameter	Mandatory	Type	Description
fsGroupChangePolicy	No	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	No	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

Parameter	Mandatory	Type	Description
runAsUser	No	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seLinuxOptions	No	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	No	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	No	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	No	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	No	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4415** io.k8s.api.core.v1.SELinuxOptions

Parameter	Mandatory	Type	Description
level	No	String	Level is SELinux level label that applies to the container.
role	No	String	Role is a SELinux role label that applies to the container.
type	No	String	Type is a SELinux type label that applies to the container.
user	No	String	User is a SELinux user label that applies to the container.

**Table 5-4416** io.k8s.api.core.v1.SeccompProfile

Parameter	Mandatory	Type	Description
localhostProfile	No	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	Yes	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-4417** io.k8s.api.core.v1.Sysctl

Parameter	Mandatory	Type	Description
name	Yes	String	Name of a property to set
value	Yes	String	Value of a property to set

**Table 5-4418** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Mandatory	Type	Description
gmsaCredentialSpec	No	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	No	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	No	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4419** io.k8s.api.core.v1.Toleration

Parameter	Mandatory	Type	Description
effect	No	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	No	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.



Parameter	Mandatory	Type	Description
operator	No	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	No	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	No	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-4420** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Mandatory	Type	Description
labelSelector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Mandatory	Type	Description
maxSkew	Yes	Integer	<p>MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i>, it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3     P   P     - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1 (zone2) would make the ActualSkew(2-0) on zone1 (zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i>, it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.</p>
topologyKey	Yes	String	<p>TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each &lt;key, value&gt; as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.</p>

Parameter	Mandatory	Type	Description
whenUnsatisfiable	Yes	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3     P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-4421** io.k8s.api.core.v1.Volume

Parameter	Mandatory	Type	Description
awsElasticBlockStore	No	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

Parameter	Mandatory	Type	Description
azureDisk	No	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	No	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	No	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	No	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	No	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	No	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	No	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	No	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Mandatory	Type	Description
ephemeral	No	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	No	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	<p>FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.</p>
flexVolume	No	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	<p>FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.</p>

Parameter	Mandatory	Type	Description
flocker	No	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	No	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
gitRepo	No	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	No	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	No	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	No	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>

Parameter	Mandatory	Type	Description
localDir	No	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	Yes	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	No	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	No	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine
portworxVolume	No	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	No	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	No	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime

Parameter	Mandatory	Type	Description
rbd	No	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	No	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	No	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	No	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	No	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-4422** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>



Parameter	Mandatory	Type	Description
partition	No	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	No	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	Yes	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-4423** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Mandatory	Type	Description
cachingMode	No	String	Host Caching mode: None, Read Only, Read Write.
diskName	Yes	String	The Name of the data disk in the blob storage
diskURI	Yes	String	The URI the data disk in the blob storage
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.

Parameter	Mandatory	Type	Description
kind	No	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-4424** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	Yes	String	the name of secret that contains Azure Storage Account Name and Key
shareName	Yes	String	Share Name

**Table 5-4425** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Mandatory	Type	Description
monitors	Yes	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	No	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	No	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a>	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	No	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-4426** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

Parameter	Mandatory	Type	Description
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	Yes	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-4427** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-4428** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Mandatory	Type	Description
driver	Yes	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	No	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	No	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Mandatory	Type	Description
volumeAttributes	No	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-4429** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits to use on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	No	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-4430** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Mandatory	Type	Description
medium	No	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	No	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-4431** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Mandatory	Type	Description
volumeClaimTemplate	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>



**Table 5-4432** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Mandatory	Type	Description
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	Yes	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-4433** io.k8s.api.core.v1.FCVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	No	Integer	Optional: FC target lun number
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	No	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	No	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-4434** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Mandatory	Type	Description
driver	Yes	String	Driver is the name of the driver to use for this volume.
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	No	Map<String,String>	Optional: Extra command options if any.
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-4435** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Mandatory	Type	Description
datasetName	No	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	No	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-4436** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	No	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	Yes	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-4437** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Mandatory	Type	Description
directory	No	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	Yes	String	Repository URL
revision	No	String	Commit hash for the specified revision.

**Table 5-4438** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Mandatory	Type	Description
endpoints	Yes	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	Yes	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	No	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-4439** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Mandatory	Type	Description
path	Yes	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
type	No	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-4440** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Mandatory	Type	Description
chapAuthDiscovery	No	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	No	Boolean	whether support iSCSI Session CHAP authentication
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	No	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	Yes	String	Target iSCSI Qualified Name.
iscsiInterface	No	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Yes	Integer	iSCSI Target Lun number.

Parameter	Mandatory	Type	Description
portals	No	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	Yes	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-4441** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Mandatory	Type	Description
sizeLimit	No	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that:</p> <ol style="list-style-type: none"> <li>No precision is lost b.</li> <li>No fractional digits will be emitted c.</li> <li>The exponent (or</li> </ol>

Parameter	Mandatory	Type	Description
			<p>suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that will cause implementors to also use a fixed point implementation.</p>

**Table 5-4442** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Mandatory	Type	Description
path	Yes	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	No	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	Yes	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>



**Table 5-4443** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Mandatory	Type	Description
claimName	Yes	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	No	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-4444** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	Yes	String	ID that identifies Photon Controller persistent disk

**Table 5-4445** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	FSType represents the filesystem type to mount Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	Yes	String	VolumeID uniquely identifies a Portworx volume

**Table 5-4446** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Yes	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-4447** io.k8s.api.core.v1.VolumeProjection

Parameter	Mandatory	Type	Description
configMap	No	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	No	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project
secret	No	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	No	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-4448** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '.' path or start with '..'.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-4449** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-4450** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Mandatory	Type	Description
fieldRef	No	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.

Parameter	Mandatory	Type	Description
mode	No	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	Yes	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	No	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-4451** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Mandatory	Type	Description
apiVersion	No	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	Yes	String	Path of the field to select in the specified API version.

**Table 5-4452** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Mandatory	Type	Description
containerName	No	String	Container name: required for volumes, optional for env vars

Parameter	Mandatory	Type	Description
divisor	No	String	Specifies the output format of the exposed resources, defaults to "1"
resource	Yes	String	Required: resource to select

**Table 5-4453** io.k8s.api.core.v1.SecretProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret or its key must be defined

**Table 5-4454** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Mandatory	Type	Description
audience	No	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	No	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	Yes	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-4455** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Mandatory	Type	Description
group	No	String	Group to map volume access to Default is no group
readOnly	No	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	Yes	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes

Parameter	Mandatory	Type	Description
tenant	No	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	No	String	User to map volume access to Defaults to serviceaccount user
volume	Yes	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-4456** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	Yes	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	No	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Yes	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
pool	No	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	No	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-4457** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	Yes	String	The host address of the ScaleIO API Gateway.
protectionDomain	No	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	Yes	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	No	Boolean	Flag to enable/disable SSL communication with Gateway, default false



Parameter	Mandatory	Type	Description
storageMode	No	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	No	String	The ScaleIO Storage Pool associated with the protection domain.
system	Yes	String	The name of the storage system as configured in ScaleIO.
volumeName	No	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-4458** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.

Parameter	Mandatory	Type	Description
items	No	Array of <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	No	Boolean	Specify whether the Secret or its keys must be defined
secretName	No	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-4459** io.k8s.api.core.v1.KeyToPath

Parameter	Mandatory	Type	Description
key	Yes	String	The key to project.
mode	No	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.

Parameter	Mandatory	Type	Description
path	Yes	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-4460** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	No	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.

Parameter	Mandatory	Type	Description
volumeNamespace	No	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-4461** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	No	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	No	String	Storage Policy Based Management (SPBM) profile name.
volumePath	Yes	String	Path that identifies vSphere volume vmdk

**Table 5-4462** io.k8s.api.apps.v1.StatefulSetUpdateStrategy

Parameter	Mandatory	Type	Description
rollingUpdate	No	<a href="#">io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy</a> object	RollingUpdate is used to communicate parameters when Type is RollingUpdateStatefulSetStrategyType.
type	No	String	Type indicates the type of the StatefulSetUpdateStrategy. Default is RollingUpdate.

**Table 5-4463** io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy

Parameter	Mandatory	Type	Description
partition	No	Integer	Partition indicates the ordinal at which the StatefulSet should be partitioned. Default value is 0.

**Table 5-4464** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Mandatory	Type	Description
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-4465** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Mandatory	Type	Description
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>



Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-4466** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4467** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4468** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Mandatory	Type	Description
dataSource	No	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	No	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>

Parameter	Mandatory	Type	Description
volumeMode	No	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	No	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-4469** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Mandatory	Type	Description
apiGroup	No	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	Yes	String	Kind is the type of resource being referenced
name	Yes	String	Name is the name of resource being referenced

**Table 5-4470** io.k8s.api.core.v1.ResourceRequirements

Parameter	Mandatory	Type	Description
limits	No	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>



Parameter	Mandatory	Type	Description
requests	No	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-4471** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	No	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-4472** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	key is the label key that the selector applies to.
operator	Yes	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.

Parameter	Mandatory	Type	Description
values	No	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-4473** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	No	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	No	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	No	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-4474** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Mandatory	Type	Description
lastProbeTime	No	String	Last time we probed the condition.
lastTransitionTime	No	String	Last time the condition transitioned from one status to another.

Parameter	Mandatory	Type	Description
message	No	String	Human-readable message indicating details about last transition.
reason	No	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	Yes	String	status is the status of the condition.
type	Yes	String	type is the type of the condition.

**Table 5-4475** io.k8s.api.apps.v1.StatefulSetStatus

Parameter	Mandatory	Type	Description
collisionCount	No	Integer	collisionCount is the count of hash collisions for the StatefulSet. The StatefulSet controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ControllerRevision.
conditions	No	Array of <a href="#">io.k8s.api.apps.v1.StatefulSetCondition</a> objects	Represents the latest available observations of a statefulset's current state.
currentReplicas	No	Integer	currentReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by currentRevision.
currentRevision	No	String	currentRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [0,currentReplicas).

Parameter	Mandatory	Type	Description
observedGeneration	No	Long	observedGeneration is the most recent generation observed for this StatefulSet. It corresponds to the StatefulSet's generation, which is updated on mutation by the API Server.
readyReplicas	No	Integer	readyReplicas is the number of Pods created by the StatefulSet controller that have a Ready Condition.
replicas	Yes	Integer	replicas is the number of Pods created by the StatefulSet controller.
updateRevision	No	String	updateRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [replicas-updatedReplicas,replicas)
updatedReplicas	No	Integer	updatedReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by updateRevision.

**Table 5-4476** io.k8s.api.apps.v1.StatefulSetCondition

Parameter	Mandatory	Type	Description
lastTransitionTime	No	String	Last time the condition transitioned from one status to another.
message	No	String	A human readable message indicating details about the transition.
reason	No	String	The reason for the condition's last transition.
status	Yes	String	Status of the condition, one of True, False, Unknown.
type	Yes	String	Type of statefulset condition.

## Response Parameters

Status code: 200

**Table 5-4477** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	<a href="#">io.k8s.api.apps.v1.StatefulSetSpec</a> object	Spec defines the desired identities of pods in this set.
status	<a href="#">io.k8s.api.apps.v1.StatefulSetStatus</a> object	Status is the current status of Pods in this StatefulSet. This data may be out of date by some window of time.

**Table 5-4478** io.k8s.api.apps.v1.StatefulSetSpec

Parameter	Type	Description
podManagementPolicy	String	podManagementPolicy controls how pods are created during initial scale up, when replacing pods on nodes, or when scaling down. The default policy is <i>OrderedReady</i> , where pods are created in increasing order (pod-0, then pod-1, etc) and the controller will wait until each pod is ready before continuing. When scaling down, the pods are removed in the opposite order. The alternative policy is <i>Parallel</i> which will create pods in parallel to match the desired scale without waiting, and on scale down will delete all pods at once.
replicas	Integer	replicas is the desired number of replicas of the given Template. These are replicas in the sense that they are instantiations of the same Template, but individual replicas also have a consistent identity. If unspecified, defaults to 1.
revisionHistoryLimit	Integer	revisionHistoryLimit is the maximum number of revisions that will be maintained in the StatefulSet's revision history. The revision history consists of all revisions not represented by a currently applied StatefulSetSpec version. The default value is 10.
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	selector is a label query over pods that should match the replica count. It must match the pod template's labels. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>
serviceName	String	serviceName is the name of the service that governs this StatefulSet. This service must exist before the StatefulSet, and is responsible for the network identity of the set. Pods get DNS/hostnames that follow the pattern: pod-specific-string.serviceName.default.svc.cluster.local where "pod-specific-string" is managed by the StatefulSet controller.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	template is the object that describes the pod that will be created if insufficient replicas are detected. Each pod stamped out by the StatefulSet will fulfill this Template, but have a unique identity from the rest of the StatefulSet.

Parameter	Type	Description
updateStrategy	<a href="#">io.k8s.api.apps.v1.StatefulSetUpdateStrategy</a> object	updateStrategy indicates the StatefulSetUpdateStrategy that will be employed to update Pods in the StatefulSet when a revision is made to Template.
volumeClaimTemplates	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> objects	volumeClaimTemplates is a list of claims that pods are allowed to reference. The StatefulSet controller is responsible for mapping network identities to claims in a way that maintains the identity of a pod. Every claim in this list must have at least one matching (by name) volumeMount in one container in the template. A claim in this list takes precedence over any volumes in the template, with the same name.

**Table 5-4479** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-4480** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.

Parameter	Type	Description
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAlias</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.



Parameter	Type	Description
hostname	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/objects/PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-4481** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-4482** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-4483** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.

Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-4484** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-4485** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-4486** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-4487** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-4488** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-4489** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.



**Table 5-4490** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-4491** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-4492** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-4493** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-4494** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-4495** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-4496** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.



Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-4497** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-4498** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-4499** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-4500** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-4501** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-4502** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-4503** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-4504** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-4505** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-4506** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-4507** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4508** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-4509** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-4510** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-4511** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.



**Table 5-4512** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-4513** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-4514** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-4515** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'. Must not contain '..'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-4516** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-4517** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-4518** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-4519** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>
fsGroupChangePolicy	String	<p>fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".</p>
runAsGroup	Long	<p>The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>
runAsNonRoot	Boolean	<p>Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.</p>
runAsUser	Long	<p>The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4520** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-4521** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-4522** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-4523** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4524** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-4525** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-4526** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>



Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-4527** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-4528** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-4529** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-4530** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-4531** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-4532** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-4533** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-4534** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-4535** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-4536** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).



Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-4537** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-4538** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-4539** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-4540** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-4541** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-4542** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-4543** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-4544** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-4545** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-4546** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-4547** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-4548** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-4549** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-4550** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-4551** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-4552** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project



Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-4553** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-4554** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-4555** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-4556** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-4557** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-4558** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-4559** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-4560** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-4561** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-4562** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-4563** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-4564** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-4565** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-4566** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-4567** io.k8s.api.apps.v1.StatefulSetUpdateStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy</a> object	RollingUpdate is used to communicate parameters when Type is RollingUpdateStatefulSetStrategyType.
type	String	Type indicates the type of the StatefulSetUpdateStrategy. Default is RollingUpdate.

**Table 5-4568** io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy

Parameter	Type	Description
partition	Integer	Partition indicates the ordinal at which the StatefulSet should be partitioned. Default value is 0.

**Table 5-4569** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>



Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-4570** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.
generateName	String	GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.  If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).  Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a>
generation	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-4571** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4572** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4573** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-4574** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-4575** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-4576** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-4577** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.



Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-4578** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-4579** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Table 5-4580** io.k8s.api.apps.v1.StatefulSetStatus

Parameter	Type	Description
collisionCount	Integer	collisionCount is the count of hash collisions for the StatefulSet. The StatefulSet controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ControllerRevision.
conditions	Array of <a href="#">io.k8s.api.apps.v1.StatefulSetCondition</a> objects	Represents the latest available observations of a statefulset's current state.
currentReplicas	Integer	currentReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by currentRevision.
currentRevision	String	currentRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [0,currentReplicas).
observedGeneration	Long	observedGeneration is the most recent generation observed for this StatefulSet. It corresponds to the StatefulSet's generation, which is updated on mutation by the API Server.
readyReplicas	Integer	readyReplicas is the number of Pods created by the StatefulSet controller that have a Ready Condition.
replicas	Integer	replicas is the number of Pods created by the StatefulSet controller.
updateRevision	String	updateRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [replicas-updatedReplicas,replicas)

Parameter	Type	Description
updatedReplicas	Integer	updatedReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by updateRevision.

**Table 5-4581** io.k8s.api.apps.v1.StatefulSetCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of statefulset condition.

**Status code: 201**

**Table 5-4582** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.

Parameter	Type	Description
spec	<a href="#">io.k8s.api.apps.v1.StatefulSetSpec</a> object	Spec defines the desired identities of pods in this set.
status	<a href="#">io.k8s.api.apps.v1.StatefulSetStatus</a> object	Status is the current status of Pods in this StatefulSet. This data may be out of date by some window of time.

**Table 5-4583** io.k8s.api.apps.v1.StatefulSetSpec

Parameter	Type	Description
podManagementPolicy	String	podManagementPolicy controls how pods are created during initial scale up, when replacing pods on nodes, or when scaling down. The default policy is <i>OrderedReady</i> , where pods are created in increasing order (pod-0, then pod-1, etc) and the controller will wait until each pod is ready before continuing. When scaling down, the pods are removed in the opposite order. The alternative policy is <i>Parallel</i> which will create pods in parallel to match the desired scale without waiting, and on scale down will delete all pods at once.
replicas	Integer	replicas is the desired number of replicas of the given Template. These are replicas in the sense that they are instantiations of the same Template, but individual replicas also have a consistent identity. If unspecified, defaults to 1.
revisionHistoryLimit	Integer	revisionHistoryLimit is the maximum number of revisions that will be maintained in the StatefulSet's revision history. The revision history consists of all revisions not represented by a currently applied StatefulSetSpec version. The default value is 10.
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	selector is a label query over pods that should match the replica count. It must match the pod template's labels. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>

Parameter	Type	Description
serviceName	String	serviceName is the name of the service that governs this StatefulSet. This service must exist before the StatefulSet, and is responsible for the network identity of the set. Pods get DNS/hostnames that follow the pattern: pod-specific-string.serviceName.default.svc.cluster.local where "pod-specific-string" is managed by the StatefulSet controller.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	template is the object that describes the pod that will be created if insufficient replicas are detected. Each pod stamped out by the StatefulSet will fulfill this Template, but have a unique identity from the rest of the StatefulSet.
updateStrategy	<a href="#">io.k8s.api.apps.v1.StatefulSetUpdateStrategy</a> object	updateStrategy indicates the StatefulSetUpdateStrategy that will be employed to update Pods in the StatefulSet when a revision is made to Template.
volumeClaimTemplates	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> objects	volumeClaimTemplates is a list of claims that pods are allowed to reference. The StatefulSet controller is responsible for mapping network identities to claims in a way that maintains the identity of a pod. Every claim in this list must have at least one matching (by name) volumeMount in one container in the template. A claim in this list takes precedence over any volumes in the template, with the same name.

**Table 5-4584** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-4585** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.

Parameter	Type	Description
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>

Parameter	Type	Description
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.



Parameter	Type	Description
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://github.com/kubernetes/api/blob/master/core/v1/pod_readiness_gate.go">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="https://github.com/kubernetes/api/blob/master/core/v1/pod_security_context.go">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.

Parameter	Type	Description
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="https://kubernetes.io/api-reference/v1.27/types/#io.k8s.api.core.v1.Toleration">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.

Parameter	Type	Description
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-4586** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-4587** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-4588** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-4589** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-4590** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-4591** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-4592** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-4593** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-4594** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-4595** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-4596** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-4597** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-4598** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>



Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-4599** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-4600** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-4601** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-4602** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-4603** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-4604** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined



**Table 5-4605** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-4606** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-4607** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-4608** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-4609** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-4610** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-4611** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-4612** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4613** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-4614** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCP socket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-4615** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-4616** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-4617** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-4618** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-4619** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-4620** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-4621** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-4622** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-4623** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.



**Table 5-4624** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4625** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-4626** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-4627** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-4628** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4629** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-4630** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-4631** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine



Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-4632** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-4633** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-4634** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-4635** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-4636** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-4637** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-4638** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-4639** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-4640** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-4641** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-4642** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-4643** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-4644** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.



**Table 5-4645** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-4646** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-4647** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-4648** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-4649** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-4650** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-4651** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-4652** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-4653** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-4654** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-4655** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-4656** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-4657** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-4658** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-4659** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-4660** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-4661** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-4662** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select



**Table 5-4663** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-4664** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-4665** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-4666** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-4667** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-4668** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-4669** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-4670** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-4671** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-4672** io.k8s.api.apps.v1.StatefulSetUpdateStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy</a> object	RollingUpdate is used to communicate parameters when Type is RollingUpdateStatefulSetStrategyType.
type	String	Type indicates the type of the StatefulSetUpdateStrategy. Default is RollingUpdate.

**Table 5-4673** io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy

Parameter	Type	Description
partition	Integer	Partition indicates the ordinal at which the StatefulSet should be partitioned. Default value is 0.

**Table 5-4674** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-4675** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>



Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-4676** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4677** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4678** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-4679** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-4680** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-4681** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-4682** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-4683** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-4684** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Table 5-4685** io.k8s.api.apps.v1.StatefulSetStatus

Parameter	Type	Description
collisionCount	Integer	collisionCount is the count of hash collisions for the StatefulSet. The StatefulSet controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ControllerRevision.
conditions	Array of <a href="#">io.k8s.api.apps.v1.StatefulSetCondition</a> objects	Represents the latest available observations of a statefulset's current state.
currentReplicas	Integer	currentReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by currentRevision.
currentRevision	String	currentRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [0,currentReplicas).
observedGeneration	Long	observedGeneration is the most recent generation observed for this StatefulSet. It corresponds to the StatefulSet's generation, which is updated on mutation by the API Server.
readyReplicas	Integer	readyReplicas is the number of Pods created by the StatefulSet controller that have a Ready Condition.
replicas	Integer	replicas is the number of Pods created by the StatefulSet controller.
updateRevision	String	updateRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [replicas-updatedReplicas,replicas)



Parameter	Type	Description
updatedReplicas	Integer	updatedReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by updateRevision.

**Table 5-4686** io.k8s.api.apps.v1.StatefulSetCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of statefulset condition.

**Status code: 202**

**Table 5-4687** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.

Parameter	Type	Description
spec	<a href="#">io.k8s.api.apps.v1.StatefulSetSpec</a> object	Spec defines the desired identities of pods in this set.
status	<a href="#">io.k8s.api.apps.v1.StatefulSetStatus</a> object	Status is the current status of Pods in this StatefulSet. This data may be out of date by some window of time.

**Table 5-4688** io.k8s.api.apps.v1.StatefulSetSpec

Parameter	Type	Description
podManagementPolicy	String	podManagementPolicy controls how pods are created during initial scale up, when replacing pods on nodes, or when scaling down. The default policy is <i>OrderedReady</i> , where pods are created in increasing order (pod-0, then pod-1, etc) and the controller will wait until each pod is ready before continuing. When scaling down, the pods are removed in the opposite order. The alternative policy is <i>Parallel</i> which will create pods in parallel to match the desired scale without waiting, and on scale down will delete all pods at once.
replicas	Integer	replicas is the desired number of replicas of the given Template. These are replicas in the sense that they are instantiations of the same Template, but individual replicas also have a consistent identity. If unspecified, defaults to 1.
revisionHistoryLimit	Integer	revisionHistoryLimit is the maximum number of revisions that will be maintained in the StatefulSet's revision history. The revision history consists of all revisions not represented by a currently applied StatefulSetSpec version. The default value is 10.
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	selector is a label query over pods that should match the replica count. It must match the pod template's labels. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>

Parameter	Type	Description
serviceName	String	serviceName is the name of the service that governs this StatefulSet. This service must exist before the StatefulSet, and is responsible for the network identity of the set. Pods get DNS/hostnames that follow the pattern: pod-specific-string.serviceName.default.svc.cluster.local where "pod-specific-string" is managed by the StatefulSet controller.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	template is the object that describes the pod that will be created if insufficient replicas are detected. Each pod stamped out by the StatefulSet will fulfill this Template, but have a unique identity from the rest of the StatefulSet.
updateStrategy	<a href="#">io.k8s.api.apps.v1.StatefulSetUpdateStrategy</a> object	updateStrategy indicates the StatefulSetUpdateStrategy that will be employed to update Pods in the StatefulSet when a revision is made to Template.
volumeClaimTemplates	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> objects	volumeClaimTemplates is a list of claims that pods are allowed to reference. The StatefulSet controller is responsible for mapping network identities to claims in a way that maintains the identity of a pod. Every claim in this list must have at least one matching (by name) volumeMount in one container in the template. A claim in this list takes precedence over any volumes in the template, with the same name.

**Table 5-4689** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-4690** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.

Parameter	Type	Description
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>

Parameter	Type	Description
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.

Parameter	Type	Description
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://github.com/kubernetes/api/blob/master/core/v1/pod_readiness_gates.go">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="https://github.com/kubernetes/api/blob/master/core/v1/pod_security_context.go">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.

Parameter	Type	Description
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="https://kubernetes.io/api-references/api/v1/#toleration">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.



Parameter	Type	Description
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-4691** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-4692** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-4693** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-4694** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-4695** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-4696** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-4697** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-4698** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringSchedulingIgnoredDuringExecution anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-4699** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-4700** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-4701** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-4702** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-4703** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.



Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-4704** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-4705** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-4706** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-4707** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-4708** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-4709** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-4710** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-4711** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-4712** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-4713** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-4714** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-4715** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.



Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-4716** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-4717** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4718** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-4719** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-4720** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-4721** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-4722** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-4723** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-4724** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-4725** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-4726** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-4727** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-4728** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-4729** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4730** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.



**Table 5-4731** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-4732** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-4733** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4734** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-4735** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-4736** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-4737** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-4738** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared



Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-4739** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-4740** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-4741** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-4742** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-4743** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-4744** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-4745** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-4746** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-4747** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-4748** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-4749** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-4750** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-4751** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-4752** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-4753** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-4754** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>



**Table 5-4755** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-4756** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-4757** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-4758** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-4759** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-4760** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-4761** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-4762** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-4763** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-4764** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-4765** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-4766** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-4767** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-4768** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-4769** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-4770** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-4771** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>



Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-4772** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-4773** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-4774** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-4775** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-4776** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-4777** io.k8s.api.apps.v1.StatefulSetUpdateStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy</a> object	RollingUpdate is used to communicate parameters when Type is RollingUpdateStatefulSetStrategyType.
type	String	Type indicates the type of the StatefulSetUpdateStrategy. Default is RollingUpdate.

**Table 5-4778** io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy

Parameter	Type	Description
partition	Integer	Partition indicates the ordinal at which the StatefulSet should be partitioned. Default value is 0.

**Table 5-4779** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-4780** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.



Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4781** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4782** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4783** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-4784** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-4785** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-4786** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-4787** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-4788** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-4789** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Table 5-4790** io.k8s.api.apps.v1.StatefulSetStatus

Parameter	Type	Description
collisionCount	Integer	collisionCount is the count of hash collisions for the StatefulSet. The StatefulSet controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ControllerRevision.
conditions	Array of <a href="#">io.k8s.api.apps.v1.StatefulSetCondition</a> objects	Represents the latest available observations of a statefulset's current state.
currentReplicas	Integer	currentReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by currentRevision.
currentRevision	String	currentRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [0,currentReplicas).
observedGeneration	Long	observedGeneration is the most recent generation observed for this StatefulSet. It corresponds to the StatefulSet's generation, which is updated on mutation by the API Server.
readyReplicas	Integer	readyReplicas is the number of Pods created by the StatefulSet controller that have a Ready Condition.
replicas	Integer	replicas is the number of Pods created by the StatefulSet controller.
updateRevision	String	updateRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [replicas-updatedReplicas,replicas)

Parameter	Type	Description
updatedReplicas	Integer	updatedReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by updateRevision.

**Table 5-4791** io.k8s.api.apps.v1.StatefulSetCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of statefulset condition.

## Example Requests

Creating a StatefulSet named **statefulset-test** and using a Redis image to create three pods

```
{
  "apiVersion": "apps/v1",
  "kind": "StatefulSet",
  "metadata": {
    "name": "statefulset-test"
  },
  "spec": {
    "replicas": 3,
    "selector": {
      "matchLabels": {
        "app": "statefulset-test"
      }
    },
    "serviceName": "statefulset-test",
    "template": {
      "metadata": {
        "labels": {
          "app": "statefulset-test"
        }
      },
      "spec": {
        "containers": [ {
          "image": "redis",
          "name": "container-0",
          "resources": {
            "limits": {
              "cpu": "500m",
              "memory": "1024Mi"
            }
          }
        }
      ]
    }
  }
}
```

```
    "requests": {
      "cpu": "500m",
      "memory": "1024Mi"
    }
  },
  "imagePullSecrets": [ {
    "name": "imagepull-secret"
  } ],
  "priority": 0
}
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "apps/v1",
  "kind": "StatefulSet",
  "metadata": {
    "creationTimestamp": "2018-09-04T07:13:00Z",
    "generation": 1,
    "labels": {
      "app": "statefulset-test"
    },
    "name": "statefulset-test",
    "namespace": "namespace-test",
    "resourceVersion": "5207623",
    "selfLink": "/apis/apps/v1/namespaces/namespace-test/statefulsets/statefulset-test",
    "uid": "f4a35f35-b011-11e8-b6ef-f898ef6c78b4"
  },
  "spec": {
    "podManagementPolicy": "OrderedReady",
    "replicas": 3,
    "revisionHistoryLimit": 10,
    "selector": {
      "matchLabels": {
        "app": "statefulset-test"
      }
    },
    "serviceName": "",
    "template": {
      "metadata": {
        "annotations": {
          "cri.cci.io/container-type": "secure-container"
        },
        "creationTimestamp": null,
        "labels": {
          "app": "statefulset-test"
        }
      },
      "spec": {
        "containers": [ {
          "image": "redis",
          "imagePullPolicy": "IfNotPresent",
          "name": "container-0",
          "resources": {
            "limits": {
              "cpu": "500m",
              "memory": "1Gi"
            },
            "requests": {
              "cpu": "500m",
              "memory": "1Gi"
            }
          }
        }
      ]
    }
  }
}
```



```

    }
  },
  "terminationMessagePath" : "/dev/termination-log",
  "terminationMessagePolicy" : "File"
}],
"dnsPolicy" : "ClusterFirst",
"imagePullSecrets" : [ {
  "name" : "imagepull-secret"
} ],
"restartPolicy" : "Always",
"schedulerName" : "default-scheduler",
"securityContext" : { }
}
},
"updateStrategy" : {
  "type" : "OnDelete"
}
},
"status" : {
  "replicas" : 0
}
}
}

```

## Status Codes

Status Code	Description
200	OK
201	Created
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	AlreadyExists
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.19.4 Deleting a StatefulSet

### Function

This API is used to delete a specified StatefulSet.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /apis/apps/v1/namespaces/{namespace}/statefulsets/{name}

**Table 5-4792** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the StatefulSet
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-4793** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

Table 5-4794 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-4795** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.

Parameter	Mandatory	Type	Description
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-4796** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

Status code: 200

**Table 5-4797** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-4798** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4799** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-4800** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.



Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

**Status code: 202**

**Table 5-4801** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-4802** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.

Parameter	Type	Description
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4803** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-4804** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

- Deleting only the StatefulSet (The pods are not deleted.)

```
{
  "Kind" : "DeleteOptions",
  "apiVersion" : "v1",
  "propagationPolicy" : "Orphan"
}
```

- Deleting the pods and then the StatefulSet

```
{
  "apiVersion" : "v1",
  "kind" : "DeleteOptions",
  "propagationPolicy" : "Foreground"
}
```

- Deleting the StatefulSet and then the pods

```
{
  "apiVersion" : "v1",
  "kind" : "DeleteOptions",
  "propagationPolicy" : "Background"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion" : "v1",
  "code" : 200,
  "details" : {
    "group" : "apps",
    "kind" : "statefulsets",
    "name" : "statefulset-test",
    "uid" : "5eb82b50-b028-11e8-9d5d-c88d83be759f"
  },
  "kind" : "Status",
  "metadata" : { },
  "status" : "Success"
}
```

## Status Codes

Status Code	Description
200	OK
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable

Status Code	Description
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.19.5 Querying a StatefulSet

### Function

This API is used to query the details about a specified StatefulSet.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/apps/v1/namespaces/{namespace}/statefulsets/{name}

**Table 5-4805** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the StatefulSet
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-4806** Query Parameters

Parameter	Mandatory	Type	Description
exact	No	Boolean	Should the export be exact. Exact export maintains cluster-specific fields like 'Namespace'. Deprecated. Planned for removal in 1.18.

Parameter	Mandatory	Type	Description
export	No	Boolean	Should this value be exported. Export strips fields that a user can not specify. Deprecated. Planned for removal in 1.18.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

Table 5-4807 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

Table 5-4808 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	<a href="#">io.k8s.api.apps.v1.StatefulSetSpec</a> object	Spec defines the desired identities of pods in this set.
status	<a href="#">io.k8s.api.apps.v1.StatefulSetStatus</a> object	Status is the current status of Pods in this StatefulSet. This data may be out of date by some window of time.

**Table 5-4809** io.k8s.api.apps.v1.StatefulSetSpec

Parameter	Type	Description
podManagementPolicy	String	podManagementPolicy controls how pods are created during initial scale up, when replacing pods on nodes, or when scaling down. The default policy is <i>OrderedReady</i> , where pods are created in increasing order (pod-0, then pod-1, etc) and the controller will wait until each pod is ready before continuing. When scaling down, the pods are removed in the opposite order. The alternative policy is <i>Parallel</i> which will create pods in parallel to match the desired scale without waiting, and on scale down will delete all pods at once.
replicas	Integer	replicas is the desired number of replicas of the given Template. These are replicas in the sense that they are instantiations of the same Template, but individual replicas also have a consistent identity. If unspecified, defaults to 1.
revisionHistoryLimit	Integer	revisionHistoryLimit is the maximum number of revisions that will be maintained in the StatefulSet's revision history. The revision history consists of all revisions not represented by a currently applied StatefulSetSpec version. The default value is 10.
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	selector is a label query over pods that should match the replica count. It must match the pod template's labels. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>



Parameter	Type	Description
serviceName	String	serviceName is the name of the service that governs this StatefulSet. This service must exist before the StatefulSet, and is responsible for the network identity of the set. Pods get DNS/hostnames that follow the pattern: pod-specific-string.serviceName.default.svc.cluster.local where "pod-specific-string" is managed by the StatefulSet controller.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	template is the object that describes the pod that will be created if insufficient replicas are detected. Each pod stamped out by the StatefulSet will fulfill this Template, but have a unique identity from the rest of the StatefulSet.
updateStrategy	<a href="#">io.k8s.api.apps.v1.StatefulSetUpdateStrategy</a> object	updateStrategy indicates the StatefulSetUpdateStrategy that will be employed to update Pods in the StatefulSet when a revision is made to Template.
volumeClaimTemplates	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> objects	volumeClaimTemplates is a list of claims that pods are allowed to reference. The StatefulSet controller is responsible for mapping network identities to claims in a way that maintains the identity of a pod. Every claim in this list must have at least one matching (by name) volumeMount in one container in the template. A claim in this list takes precedence over any volumes in the template, with the same name.

**Table 5-4810** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-4811** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.

Parameter	Type	Description
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>

Parameter	Type	Description
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.

Parameter	Type	Description
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://github.com/kubernetes/api/blob/master/core/v1/pod_readiness_gates.go">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="https://github.com/kubernetes/api/blob/master/core/v1/pod_security_context.go">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.

Parameter	Type	Description
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="https://kubernetes.io/api-references/api/v1/#toleration">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.

Parameter	Type	Description
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-4812** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-4813** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-4814** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-4815** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.



**Table 5-4816** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-4817** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-4818** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-4819** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-4820** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-4821** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-4822** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-4823** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-4824** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-4825** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-4826** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-4827** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.



Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-4828** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-4829** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-4830** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-4831** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-4832** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-4833** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-4834** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-4835** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-4836** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-4837** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-4838** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.



Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4839** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-4840** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-4841** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-4842** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-4843** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-4844** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-4845** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-4846** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-4847** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-4848** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-4849** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-4850** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4851** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-4852** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-4853** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-4854** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4855** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-4856** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.



Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-4857** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-4858** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-4859** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-4860** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-4861** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-4862** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-4863** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.



Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-4864** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-4865** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-4866** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-4867** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-4868** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-4869** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-4870** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-4871** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-4872** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-4873** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-4874** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-4875** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-4876** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-4877** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>



Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-4878** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-4879** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-4880** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-4881** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-4882** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-4883** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-4884** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-4885** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-4886** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-4887** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-4888** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-4889** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-4890** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-4891** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-4892** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-4893** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-4894** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-4895** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.



Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-4896** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-4897** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-4898** io.k8s.api.apps.v1.StatefulSetUpdateStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy</a> object	RollingUpdate is used to communicate parameters when Type is RollingUpdateStatefulSetStrategyType.
type	String	Type indicates the type of the StatefulSetUpdateStrategy. Default is RollingUpdate.

**Table 5-4899** io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy

Parameter	Type	Description
partition	Integer	Partition indicates the ordinal at which the StatefulSet should be partitioned. Default value is 0.

**Table 5-4900** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-4901** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4902** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-4903** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-4904** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>



Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-4905** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-4906** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-4907** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-4908** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-4909** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-4910** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Table 5-4911** io.k8s.api.apps.v1.StatefulSetStatus

Parameter	Type	Description
collisionCount	Integer	collisionCount is the count of hash collisions for the StatefulSet. The StatefulSet controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ControllerRevision.
conditions	Array of <a href="#">io.k8s.api.apps.v1.StatefulSetCondition</a> objects	Represents the latest available observations of a statefulset's current state.
currentReplicas	Integer	currentReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by currentRevision.
currentRevision	String	currentRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [0,currentReplicas).
observedGeneration	Long	observedGeneration is the most recent generation observed for this StatefulSet. It corresponds to the StatefulSet's generation, which is updated on mutation by the API Server.
readyReplicas	Integer	readyReplicas is the number of Pods created by the StatefulSet controller that have a Ready Condition.
replicas	Integer	replicas is the number of Pods created by the StatefulSet controller.
updateRevision	String	updateRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [replicas-updatedReplicas,replicas)

Parameter	Type	Description
updatedReplicas	Integer	updatedReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by updateRevision.

**Table 5-4912** io.k8s.api.apps.v1.StatefulSetCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of statefulset condition.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "apps/v1",
  "kind": "StatefulSet",
  "metadata": {
    "creationTimestamp": "2018-09-04T07:13:00Z",
    "generation": 1,
    "labels": {
      "app": "statefulset-test"
    },
    "name": "statefulset-test",
    "namespace": "namespace-test",
    "resourceVersion": "5209881",
    "selfLink": "/apis/apps/v1/namespaces/namespace-test/statefulsets/statefulset-test",
    "uid": "f4a35f35-b011-11e8-b6ef-f898ef6c78b4"
  },
  "spec": {
    "podManagementPolicy": "OrderedReady",
    "replicas": 3,
    "revisionHistoryLimit": 10,
    "selector": {
      "matchLabels": {
        "app": "statefulset-test"
      }
    }
  }
}
```

```

},
"serviceName": "",
"template": {
  "metadata": {
    "annotations": {
      "cri.cci.io/container-type": "secure-container"
    },
    "creationTimestamp": null,
    "labels": {
      "app": "statefulset-test"
    }
  },
  "spec": {
    "containers": [ {
      "image": "redis",
      "imagePullPolicy": "IfNotPresent",
      "name": "container-0",
      "resources": {
        "limits": {
          "cpu": "500m",
          "memory": "1Gi"
        },
        "requests": {
          "cpu": "500m",
          "memory": "1Gi"
        }
      },
      "terminationMessagePath": "/dev/termination-log",
      "terminationMessagePolicy": "File"
    } ],
    "dnsPolicy": "ClusterFirst",
    "imagePullSecrets": [ {
      "name": "imagepull-secret"
    } ],
    "restartPolicy": "Always",
    "schedulerName": "default-scheduler",
    "securityContext": { }
  }
},
"updateStrategy": {
  "type": "OnDelete"
},
"status": {
  "collisionCount": 0,
  "currentReplicas": 3,
  "currentRevision": "statefulset-test-f986b645b",
  "observedGeneration": 1,
  "readyReplicas": 2,
  "replicas": 3,
  "updateRevision": "statefulset-test-f986b645b"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden

Status Code	Description
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.19.6 Updating a StatefulSet

### Function

This API is used to update a specified StatefulSet.

The following fields can be updated:

- **metadata.labels**
- **metadata.annotations**
- **spec.replicas**
- **spec.template**
- **spec.restartPolicy**
- **spec.revisionHistoryLimit**
- **spec.progressDeadlineSeconds** Other fields cannot be updated.

### Calling Method

For details, see [Calling APIs](#).

### URI

PATCH /apis/apps/v1/namespaces/{namespace}/statefulsets/{name}

**Table 5-4913** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the StatefulSet
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-4914** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> . This field is required for apply requests (application/apply-patch) but optional for non-apply patch types (JsonPatch, MergePatch, StrategicMergePatch).
force	No	Boolean	Force is going to "force" Apply requests. It means user will re-acquire conflicting fields owned by other people. Force flag must be unset for non-apply patch requests.
pretty	No	String	If 'true', then the output is pretty printed.



## Request Parameters

Table 5-4915 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	<p>Currently, three types of patch request methods are supported. For details, see "Update API Objects in Place Using kubectl patch" (<a href="https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/">https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/</a>).</p> <ul style="list-style-type: none"> <li>• <b>Json Patch, Content-Type: application/json-patch+json</b> As defined in RFC6902, Json Patch contains a series of operations on a JSON object. After receiving the object, the server applies the represented operations to the JSON object.</li> <li>• <b>Merge Patch, Content-Type: application/merge-patch+json</b> According to RFC 7386, Merge Patch contains some description of a JSON object. The JSON object is submitted to the server end and merges with the current object of the server end, which means to replace the list field of the current resource object to form a new object.</li> <li>• <b>Strategic Merge Patch, Content-Type: application/strategic-merge-patch+json</b> Strategic Merge Patch is used to add legal metadata to API objects and uses new metadata to determine which lists should be merged and which ones should not. The current metadata is used as the structure labels.</li> </ul>

**Table 5-4916** Request body parameters

Parameter	Mandatory	Type	Description
-	Yes	Object	Patch is provided to give a concrete name and type to the Kubernetes PATCH request body.

## Response Parameters

Status code: 200

**Table 5-4917** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	<a href="#">io.k8s.api.apps.v1.StatefulSetSpec</a> object	Spec defines the desired identities of pods in this set.
status	<a href="#">io.k8s.api.apps.v1.StatefulSetStatus</a> object	Status is the current status of Pods in this StatefulSet. This data may be out of date by some window of time.

**Table 5-4918** io.k8s.api.apps.v1.StatefulSetSpec

Parameter	Type	Description
podManagementPolicy	String	podManagementPolicy controls how pods are created during initial scale up, when replacing pods on nodes, or when scaling down. The default policy is <i>OrderedReady</i> , where pods are created in increasing order (pod-0, then pod-1, etc) and the controller will wait until each pod is ready before continuing. When scaling down, the pods are removed in the opposite order. The alternative policy is <i>Parallel</i> which will create pods in parallel to match the desired scale without waiting, and on scale down will delete all pods at once.
replicas	Integer	replicas is the desired number of replicas of the given Template. These are replicas in the sense that they are instantiations of the same Template, but individual replicas also have a consistent identity. If unspecified, defaults to 1.
revisionHistoryLimit	Integer	revisionHistoryLimit is the maximum number of revisions that will be maintained in the StatefulSet's revision history. The revision history consists of all revisions not represented by a currently applied StatefulSetSpec version. The default value is 10.
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	selector is a label query over pods that should match the replica count. It must match the pod template's labels. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>
serviceName	String	serviceName is the name of the service that governs this StatefulSet. This service must exist before the StatefulSet, and is responsible for the network identity of the set. Pods get DNS/hostnames that follow the pattern: pod-specific-string.serviceName.default.svc.cluster.local where "pod-specific-string" is managed by the StatefulSet controller.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	template is the object that describes the pod that will be created if insufficient replicas are detected. Each pod stamped out by the StatefulSet will fulfill this Template, but have a unique identity from the rest of the StatefulSet.

Parameter	Type	Description
updateStrategy	<a href="#">io.k8s.api.apps.v1.StatefulSetUpdateStrategy</a> object	updateStrategy indicates the StatefulSetUpdateStrategy that will be employed to update Pods in the StatefulSet when a revision is made to Template.
volumeClaimTemplates	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> objects	volumeClaimTemplates is a list of claims that pods are allowed to reference. The StatefulSet controller is responsible for mapping network identities to claims in a way that maintains the identity of a pod. Every claim in this list must have at least one matching (by name) volumeMount in one container in the template. A claim in this list takes precedence over any volumes in the template, with the same name.

**Table 5-4919** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-4920** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.

Parameter	Type	Description
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.

Parameter	Type	Description
hostname	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/objects/PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>



Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-4921** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-4922** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-4923** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.

Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-4924** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-4925** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-4926** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-4927** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-4928** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-4929** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-4930** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-4931** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-4932** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-4933** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>



Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-4934** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-4935** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-4936** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-4937** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-4938** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-4939** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined



**Table 5-4940** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-4941** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-4942** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-4943** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-4944** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-4945** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-4946** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-4947** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4948** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-4949** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-4950** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-4951** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-4952** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-4953** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-4954** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-4955** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'. Must not contain '..'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-4956** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-4957** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-4958** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.



**Table 5-4959** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>
fsGroupChangePolicy	String	<p>fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".</p>
runAsGroup	Long	<p>The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>
runAsNonRoot	Boolean	<p>Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.</p>
runAsUser	Long	<p>The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4960** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-4961** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-4962** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-4963** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-4964** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-4965** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-4966** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine



Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-4967** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-4968** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-4969** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-4970** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-4971** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-4972** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-4973** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-4974** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-4975** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-4976** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-4977** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-4978** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-4979** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.



**Table 5-4980** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-4981** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-4982** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-4983** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-4984** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-4985** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-4986** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-4987** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-4988** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-4989** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-4990** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-4991** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-4992** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-4993** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-4994** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-4995** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-4996** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-4997** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select



**Table 5-4998** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-4999** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-5000** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-5001** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-5002** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-5003** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-5004** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-5005** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-5006** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-5007** io.k8s.api.apps.v1.StatefulSetUpdateStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy</a> object	RollingUpdate is used to communicate parameters when Type is RollingUpdateStatefulSetStrategyType.
type	String	Type indicates the type of the StatefulSetUpdateStrategy. Default is RollingUpdate.

**Table 5-5008** io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy

Parameter	Type	Description
partition	Integer	Partition indicates the ordinal at which the StatefulSet should be partitioned. Default value is 0.

**Table 5-5009** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-5010** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>



Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-5011** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-5012** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-5013** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-5014** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-5015** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-5016** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-5017** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-5018** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-5019** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Table 5-5020** io.k8s.api.apps.v1.StatefulSetStatus

Parameter	Type	Description
collisionCount	Integer	collisionCount is the count of hash collisions for the StatefulSet. The StatefulSet controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ControllerRevision.
conditions	Array of <a href="#">io.k8s.api.apps.v1.StatefulSetCondition</a> objects	Represents the latest available observations of a statefulset's current state.
currentReplicas	Integer	currentReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by currentRevision.
currentRevision	String	currentRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [0,currentReplicas).
observedGeneration	Long	observedGeneration is the most recent generation observed for this StatefulSet. It corresponds to the StatefulSet's generation, which is updated on mutation by the API Server.
readyReplicas	Integer	readyReplicas is the number of Pods created by the StatefulSet controller that have a Ready Condition.
replicas	Integer	replicas is the number of Pods created by the StatefulSet controller.
updateRevision	String	updateRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [replicas-updatedReplicas,replicas)



Parameter	Type	Description
updatedReplicas	Integer	updatedReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by updateRevision.

**Table 5-5021** io.k8s.api.apps.v1.StatefulSetCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of statefulset condition.

## Example Requests

Changing the **labels** value of an existing StatefulSet to **"app": "statefulset-test2"**

```
{
  "metadata": {
    "labels": {
      "app": "statefulset-test2"
    }
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "apps/v1",
  "kind": "StatefulSet",
  "metadata": {
    "creationTimestamp": "2018-09-04T07:13:00Z",
    "generation": 2,
    "labels": {
      "app": "statefulset-test2"
    },
    "name": "statefulset-test",
    "namespace": "namespace-test",
    "resourceVersion": "5231369",
    "selfLink": "/apis/apps/v1/namespaces/namespace-test/statefulsets/statefulset-test",
    "uid": "f4a35f35-b011-11e8-b6ef-f898ef6c78b4"
  },
}
```

```

"spec" : {
  "podManagementPolicy" : "OrderedReady",
  "replicas" : 2,
  "revisionHistoryLimit" : 10,
  "selector" : {
    "matchLabels" : {
      "app" : "statefulset-test"
    }
  },
  "serviceName" : "",
  "template" : {
    "metadata" : {
      "creationTimestamp" : null,
      "labels" : {
        "app" : "statefulset-test"
      }
    },
    "spec" : {
      "containers" : [ {
        "image" : "redis",
        "imagePullPolicy" : "IfNotPresent",
        "name" : "container-0",
        "resources" : {
          "limits" : {
            "cpu" : "500m",
            "memory" : "1Gi"
          },
          "requests" : {
            "cpu" : "500m",
            "memory" : "1Gi"
          }
        }
      } ],
      "terminationMessagePath" : "/dev/termination-log",
      "terminationMessagePolicy" : "File"
    },
    "dnsPolicy" : "ClusterFirst",
    "imagePullSecrets" : [ {
      "name" : "imagepull-secret"
    } ],
    "restartPolicy" : "Always",
    "schedulerName" : "default-scheduler",
    "securityContext" : { }
  }
},
"updateStrategy" : {
  "type" : "OnDelete"
}
},
"status" : {
  "collisionCount" : 0,
  "currentRevision" : "statefulset-test-f986b645b",
  "observedGeneration" : 2,
  "replicas" : 2,
  "updateRevision" : "statefulset-test-7748d5459",
  "updatedReplicas" : 2
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest

Status Code	Description
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.19.7 Replacing a StatefulSet

### Function

This API is used to replace a specified StatefulSet.

The following fields can be updated:

- **metadata.labels**
- **metadata.annotations**
- **spec.template**
- **spec.replicas**
- **spec.revisionHistoryLimit**
- **spec.progressDeadlineSeconds** Other fields cannot be updated.

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /apis/apps/v1/namespaces/{namespace}/statefulsets/{name}

**Table 5-5022** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the StatefulSet
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-5023** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-5024** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-5025** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	No	<a href="#">io.k8s.api.apps.v1.StatefulSetSpec</a> object	Spec defines the desired identities of pods in this set.
status	No	<a href="#">io.k8s.api.apps.v1.StatefulSetStatus</a> object	Status is the current status of Pods in this StatefulSet. This data may be out of date by some window of time.

**Table 5-5026** io.k8s.api.apps.v1.StatefulSetSpec

Parameter	Mandatory	Type	Description
podManagementPolicy	No	String	podManagementPolicy controls how pods are created during initial scale up, when replacing pods on nodes, or when scaling down. The default policy is <i>OrderedReady</i> , where pods are created in increasing order (pod-0, then pod-1, etc) and the controller will wait until each pod is ready before continuing. When scaling down, the pods are removed in the opposite order. The alternative policy is <i>Parallel</i> which will create pods in parallel to match the desired scale without waiting, and on scale down will delete all pods at once.
replicas	No	Integer	replicas is the desired number of replicas of the given Template. These are replicas in the sense that they are instantiations of the same Template, but individual replicas also have a consistent identity. If unspecified, defaults to 1.
revisionHistoryLimit	No	Integer	revisionHistoryLimit is the maximum number of revisions that will be maintained in the StatefulSet's revision history. The revision history consists of all revisions not represented by a currently applied StatefulSetSpec version. The default value is 10.
selector	Yes	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	selector is a label query over pods that should match the replica count. It must match the pod template's labels. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>

Parameter	Mandatory	Type	Description
serviceName	Yes	String	serviceName is the name of the service that governs this StatefulSet. This service must exist before the StatefulSet, and is responsible for the network identity of the set. Pods get DNS/hostnames that follow the pattern: pod-specific-string.serviceName.default.svc.cluster.local where "pod-specific-string" is managed by the StatefulSet controller.
template	Yes	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	template is the object that describes the pod that will be created if insufficient replicas are detected. Each pod stamped out by the StatefulSet will fulfill this Template, but have a unique identity from the rest of the StatefulSet.
updateStrategy	No	<a href="#">io.k8s.api.apps.v1.StatefulSetUpdateStrategy</a> object	updateStrategy indicates the StatefulSetUpdateStrategy that will be employed to update Pods in the StatefulSet when a revision is made to Template.
volumeClaimTemplates	No	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> objects	volumeClaimTemplates is a list of claims that pods are allowed to reference. The StatefulSet controller is responsible for mapping network identities to claims in a way that maintains the identity of a pod. Every claim in this list must have at least one matching (by name) volumeMount in one container in the template. A claim in this list takes precedence over any volumes in the template, with the same name.

**Table 5-5027** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Mandatory	Type	Description
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-5028** io.k8s.api.core.v1.PodSpec

Parameter	Mandatory	Type	Description
activeDeadlineSeconds	No	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	No	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	No	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Yes	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	No	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.



Parameter	Mandatory	Type	Description
dnsPolicy	No	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	No	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	No	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	No	Array of <a href="#">io.k8s.api.core.v1.HostAlias</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	No	Boolean	Use the host's ipc namespace. Optional: Default to false.

Parameter	Mandatory	Type	Description
hostNetwork	No	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	No	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	No	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	No	Array of <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod</a>

Parameter	Mandatory	Type	Description
initContainers	No	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	No	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	No	Map<String,String>	nodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Mandatory	Type	Description
overhead	No	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	No	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.

Parameter	Mandatory	Type	Description
priority	No	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	No	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	No	Array of <a href="https://kubernetes.io/api-references/api-groups/versioned/#io.k8s.api.core.v1.PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	No	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>

Parameter	Mandatory	Type	Description
runtimeClassName	No	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	No	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	No	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	No	String	DeprecatedServiceAccount is a depreciated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	No	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>

Parameter	Mandatory	Type	Description
setHostnameAsFQDN	No	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	No	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	No	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.

Parameter	Mandatory	Type	Description
terminationGracePeriodSeconds	No	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	No	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	No	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	No	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-5029** io.k8s.api.core.v1.Affinity

Parameter	Mandatory	Type	Description
nodeAffinity	No	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.



Parameter	Mandatory	Type	Description
podAffinity	No	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	No	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-5030** io.k8s.api.core.v1.NodeAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Mandatory	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	No	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-5031** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Mandatory	Type	Description
preference	Yes	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Yes	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-5032** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	No	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-5033** io.k8s.api.core.v1.NodeSelector

Parameter	Mandatory	Type	Description
nodeSelectorTerms	Yes	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-5034** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	The label key that the selector applies to.
operator	Yes	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist, Gt, and Lt.
values	No	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-5035** io.k8s.api.core.v1.PodAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-5036** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-5037** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Mandatory	Type	Description
podAffinityTerm	Yes	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Yes	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-5038** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Mandatory	Type	Description
labelSelector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	No	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	Yes	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-5039** io.k8s.api.core.v1.PodDNSConfig

Parameter	Mandatory	Type	Description
nameservers	No	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	No	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	No	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-5040** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Mandatory	Type	Description
name	No	String	Required.
value	No	String	value is the value of the option

**Table 5-5041** io.k8s.api.core.v1.EphemeralContainer

Parameter	Mandatory	Type	Description
args	No	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	No	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	No	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.



Parameter	Mandatory	Type	Description
envFrom	No	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	No	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	No	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	No	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	Yes	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	No	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.

Parameter	Mandatory	Type	Description
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	No	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	No	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	No	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false

Parameter	Mandatory	Type	Description
targetContainerName	No	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	No	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	No	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	No	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Mandatory	Type	Description
volumeDevices	No	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	No	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	No	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5042** io.k8s.api.core.v1.HostAlias

Parameter	Mandatory	Type	Description
hostnames	No	Array of strings	Hostnames for the above IP address.
ip	No	String	IP address of the host file entry.

**Table 5-5043** io.k8s.api.core.v1.LocalObjectReference

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-5044** io.k8s.api.core.v1.Container

Parameter	Mandatory	Type	Description
args	No	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	No	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	No	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.

Parameter	Mandatory	Type	Description
envFrom	No	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	No	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	No	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	No	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	No	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
securityContext	No	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>

Parameter	Mandatory	Type	Description
startupProbe	No	<a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	No	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	No	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false



Parameter	Mandatory	Type	Description
terminationMessagePath	No	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	No	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	No	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	No	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	No	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.

Parameter	Mandatory	Type	Description
workingDir	No	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5045** io.k8s.api.core.v1.EnvVar

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	No	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".
valueFrom	No	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-5046** io.k8s.api.core.v1.EnvVarSource

Parameter	Mandatory	Type	Description
configMapKeyRef	No	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.

Parameter	Mandatory	Type	Description
fieldRef	No	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports metadata.name, metadata.namespace, <i>metadata.labels['&lt;KEY&gt;']</i> , <i>metadata.annotations['&lt;KEY&gt;']</i> , spec.nodeName, spec.serviceAccountName, status.hostIP, status.podIP, status.podIPs.
resourceFieldRef	No	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	No	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-5047** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Mandatory	Type	Description
key	Yes	String	The key to select.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-5048** io.k8s.api.core.v1.SecretKeySelector

Parameter	Mandatory	Type	Description
key	Yes	String	The key of the secret to select from. Must be a valid secret key.

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret or its key must be defined

**Table 5-5049** io.k8s.api.core.v1.EnvFromSource

Parameter	Mandatory	Type	Description
configMapRef	No	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	No	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	No	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-5050** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap must be defined

**Table 5-5051** io.k8s.api.core.v1.SecretEnvSource

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret must be defined

**Table 5-5052** io.k8s.api.core.v1.Lifecycle

Parameter	Mandatory	Type	Description
postStart	No	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

Parameter	Mandatory	Type	Description
preStop	No	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-5053** io.k8s.api.core.v1.Handler

Parameter	Mandatory	Type	Description
exec	No	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	No	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
tcpSocket	No	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-5054** io.k8s.api.core.v1.ContainerPort

Parameter	Mandatory	Type	Description
containerPort	Yes	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	No	String	What host IP to bind the external port to.
hostPort	No	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	No	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	No	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-5055** io.k8s.api.core.v1.SecurityContext

Parameter	Mandatory	Type	Description
allowPrivilegeEscalation	No	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN

Parameter	Mandatory	Type	Description
capabilities	No	<a href="https://kubernetes.io/docs/reference/generated/kubernetes-api/v1.27/#capabilities-object">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	No	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.
procMount	No	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	No	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	No	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.



Parameter	Mandatory	Type	Description
runAsUser	No	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	No	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	No	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.
windowsOptions	No	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5056** io.k8s.api.core.v1.Capabilities

Parameter	Mandatory	Type	Description
add	No	Array of strings	Added capabilities
drop	No	Array of strings	Removed capabilities

**Table 5-5057** io.k8s.api.core.v1.Probe

Parameter	Mandatory	Type	Description
exec	No	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	No	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	No	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	No	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	No	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	No	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.
tcpSocket	No	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	No	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-5058** io.k8s.api.core.v1.ExecAction

Parameter	Mandatory	Type	Description
command	No	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-5059** io.k8s.api.core.v1.HTTPGetAction

Parameter	Mandatory	Type	Description
host	No	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	No	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	No	String	Path to access on the HTTP server.
port	Yes	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	No	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-5060** io.k8s.api.core.v1.HTTPHeader

Parameter	Mandatory	Type	Description
name	Yes	String	The header field name

Parameter	Mandatory	Type	Description
value	Yes	String	The header field value

**Table 5-5061** io.k8s.api.core.v1.TCPSocketAction

Parameter	Mandatory	Type	Description
host	No	String	Optional: Host name to connect to, defaults to the pod IP.
port	Yes	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-5062** io.k8s.api.core.v1.VolumeDevice

Parameter	Mandatory	Type	Description
devicePath	Yes	String	devicePath is the path inside of the container that the device will be mapped to.
name	Yes	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-5063** io.k8s.api.core.v1.VolumeMount

Parameter	Mandatory	Type	Description
extendPathMode	No	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	Yes	String	Path within the container at which the volume should be mounted. Must not contain '!'.

Parameter	Mandatory	Type	Description
mountPropagation	No	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	Yes	String	This must match the Name of a Volume.
policy	No	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	No	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	No	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	No	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$ (VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-5064** io.k8s.api.core.v1.Policy

Parameter	Mandatory	Type	Description
logs	No	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-5065** io.k8s.api.core.v1.Logs

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations for log.
rotate	Yes	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-5066** io.k8s.api.core.v1.PodReadinessGate

Parameter	Mandatory	Type	Description
conditionType	Yes	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-5067** io.k8s.api.core.v1.PodSecurityContext

Parameter	Mandatory	Type	Description
fsGroup	No	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>

Parameter	Mandatory	Type	Description
fsGroupChangePolicy	No	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	No	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

Parameter	Mandatory	Type	Description
runAsUser	No	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seLinuxOptions	No	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	No	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	No	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	No	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	No	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.



**Table 5-5068** io.k8s.api.core.v1.SELinuxOptions

Parameter	Mandatory	Type	Description
level	No	String	Level is SELinux level label that applies to the container.
role	No	String	Role is a SELinux role label that applies to the container.
type	No	String	Type is a SELinux type label that applies to the container.
user	No	String	User is a SELinux user label that applies to the container.

**Table 5-5069** io.k8s.api.core.v1.SeccompProfile

Parameter	Mandatory	Type	Description
localhostProfile	No	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	Yes	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-5070** io.k8s.api.core.v1.Sysctl

Parameter	Mandatory	Type	Description
name	Yes	String	Name of a property to set
value	Yes	String	Value of a property to set

**Table 5-5071** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Mandatory	Type	Description
gmsaCredentialSpec	No	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	No	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	No	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5072** io.k8s.api.core.v1.Toleration

Parameter	Mandatory	Type	Description
effect	No	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	No	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.

Parameter	Mandatory	Type	Description
operator	No	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	No	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	No	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-5073** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Mandatory	Type	Description
labelSelector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Mandatory	Type	Description
maxSkew	Yes	Integer	<p>MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i>, it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3     P   P     - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1 (zone2) would make the ActualSkew(2-0) on zone1 (zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i>, it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.</p>
topologyKey	Yes	String	<p>TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each &lt;key, value&gt; as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.</p>

Parameter	Mandatory	Type	Description
whenUnsatisfiable	Yes	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3     P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-5074** io.k8s.api.core.v1.Volume

Parameter	Mandatory	Type	Description
awsElasticBlockStore	No	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

Parameter	Mandatory	Type	Description
azureDisk	No	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	No	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	No	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	No	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	No	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	No	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	No	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	No	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Mandatory	Type	Description
ephemeral	No	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	No	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	<p>FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.</p>
flexVolume	No	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	<p>FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.</p>

Parameter	Mandatory	Type	Description
flocker	No	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	No	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
gitRepo	No	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	No	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	No	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	No	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>



Parameter	Mandatory	Type	Description
localDir	No	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	Yes	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	No	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	No	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine
portworxVolume	No	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	No	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	No	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime

Parameter	Mandatory	Type	Description
rbd	No	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	No	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	No	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	No	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	No	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-5075** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

Parameter	Mandatory	Type	Description
partition	No	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	No	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	Yes	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-5076** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Mandatory	Type	Description
cachingMode	No	String	Host Caching mode: None, Read Only, Read Write.
diskName	Yes	String	The Name of the data disk in the blob storage
diskURI	Yes	String	The URI the data disk in the blob storage
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.

Parameter	Mandatory	Type	Description
kind	No	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-5077** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	Yes	String	the name of secret that contains Azure Storage Account Name and Key
shareName	Yes	String	Share Name

**Table 5-5078** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Mandatory	Type	Description
monitors	Yes	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	No	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	No	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a>	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	No	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-5079** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

Parameter	Mandatory	Type	Description
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	Yes	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-5080** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-5081** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Mandatory	Type	Description
driver	Yes	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	No	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	No	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Mandatory	Type	Description
volumeAttributes	No	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-5082** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	No	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file



**Table 5-5083** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Mandatory	Type	Description
medium	No	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	No	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-5084** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Mandatory	Type	Description
volumeClaimTemplate	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-5085** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Mandatory	Type	Description
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	Yes	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-5086** io.k8s.api.core.v1.FCVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	No	Integer	Optional: FC target lun number
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	No	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	No	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-5087** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Mandatory	Type	Description
driver	Yes	String	Driver is the name of the driver to use for this volume.
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	No	Map<String,String>	Optional: Extra command options if any.
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-5088** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Mandatory	Type	Description
datasetName	No	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	No	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-5089** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	No	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	Yes	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-5090** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Mandatory	Type	Description
directory	No	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	Yes	String	Repository URL
revision	No	String	Commit hash for the specified revision.

**Table 5-5091** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Mandatory	Type	Description
endpoints	Yes	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	Yes	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	No	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-5092** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Mandatory	Type	Description
path	Yes	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
type	No	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-5093** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Mandatory	Type	Description
chapAuthDiscovery	No	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	No	Boolean	whether support iSCSI Session CHAP authentication
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	No	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	Yes	String	Target iSCSI Qualified Name.
iscsiInterface	No	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Yes	Integer	iSCSI Target Lun number.

Parameter	Mandatory	Type	Description
portals	No	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	Yes	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).



**Table 5-5094** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Mandatory	Type	Description
sizeLimit	No	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or</p>

Parameter	Mandatory	Type	Description
			<p>suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that will cause implementors to also use a fixed point implementation.</p>

**Table 5-5095** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Mandatory	Type	Description
path	Yes	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	No	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	Yes	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-5096** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Mandatory	Type	Description
claimName	Yes	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	No	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-5097** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	Yes	String	ID that identifies Photon Controller persistent disk

**Table 5-5098** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	FSType represents the filesystem type to mount Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	Yes	String	VolumeID uniquely identifies a Portworx volume

**Table 5-5099** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Yes	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-5100** io.k8s.api.core.v1.VolumeProjection

Parameter	Mandatory	Type	Description
configMap	No	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	No	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project
secret	No	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	No	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-5101** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-5102** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-5103** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Mandatory	Type	Description
fieldRef	No	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.

Parameter	Mandatory	Type	Description
mode	No	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	Yes	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	No	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-5104** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Mandatory	Type	Description
apiVersion	No	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	Yes	String	Path of the field to select in the specified API version.

**Table 5-5105** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Mandatory	Type	Description
containerName	No	String	Container name: required for volumes, optional for env vars

Parameter	Mandatory	Type	Description
divisor	No	String	Specifies the output format of the exposed resources, defaults to "1"
resource	Yes	String	Required: resource to select

**Table 5-5106** io.k8s.api.core.v1.SecretProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret or its key must be defined

**Table 5-5107** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Mandatory	Type	Description
audience	No	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	No	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	Yes	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-5108** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Mandatory	Type	Description
group	No	String	Group to map volume access to Default is no group
readOnly	No	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	Yes	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes



Parameter	Mandatory	Type	Description
tenant	No	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	No	String	User to map volume access to Defaults to serviceaccount user
volume	Yes	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-5109** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	Yes	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	No	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Yes	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
pool	No	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	No	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-5110** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	Yes	String	The host address of the ScaleIO API Gateway.
protectionDomain	No	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	Yes	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	No	Boolean	Flag to enable/disable SSL communication with Gateway, default false

Parameter	Mandatory	Type	Description
storageMode	No	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	No	String	The ScaleIO Storage Pool associated with the protection domain.
system	Yes	String	The name of the storage system as configured in ScaleIO.
volumeName	No	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-5111** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.

Parameter	Mandatory	Type	Description
items	No	Array of <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	No	Boolean	Specify whether the Secret or its keys must be defined
secretName	No	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-5112** io.k8s.api.core.v1.KeyToPath

Parameter	Mandatory	Type	Description
key	Yes	String	The key to project.
mode	No	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.

Parameter	Mandatory	Type	Description
path	Yes	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-5113** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	No	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.

Parameter	Mandatory	Type	Description
volumeNamespace	No	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-5114** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	No	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	No	String	Storage Policy Based Management (SPBM) profile name.
volumePath	Yes	String	Path that identifies vSphere volume vmdk

**Table 5-5115** io.k8s.api.apps.v1.StatefulSetUpdateStrategy

Parameter	Mandatory	Type	Description
rollingUpdate	No	<a href="#">io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy</a> object	RollingUpdate is used to communicate parameters when Type is RollingUpdateStatefulSetStrategyType.
type	No	String	Type indicates the type of the StatefulSetUpdateStrategy. Default is RollingUpdate.

**Table 5-5116** io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy

Parameter	Mandatory	Type	Description
partition	No	Integer	Partition indicates the ordinal at which the StatefulSet should be partitioned. Default value is 0.

**Table 5-5117** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Mandatory	Type	Description
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-5118** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.



Parameter	Mandatory	Type	Description
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-5119** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-5120** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-5121** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>



Parameter	Mandatory	Type	Description
dataSource	No	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	No	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>

Parameter	Mandatory	Type	Description
volumeMode	No	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	No	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-5122** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Mandatory	Type	Description
apiGroup	No	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	Yes	String	Kind is the type of resource being referenced
name	Yes	String	Name is the name of resource being referenced

**Table 5-5123** io.k8s.api.core.v1.ResourceRequirements

Parameter	Mandatory	Type	Description
limits	No	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Mandatory	Type	Description
requests	No	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-5124** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	No	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-5125** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	key is the label key that the selector applies to.
operator	Yes	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.

Parameter	Mandatory	Type	Description
values	No	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-5126** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	No	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	No	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	No	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-5127** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Mandatory	Type	Description
lastProbeTime	No	String	Last time we probed the condition.
lastTransitionTime	No	String	Last time the condition transitioned from one status to another.

Parameter	Mandatory	Type	Description
message	No	String	Human-readable message indicating details about last transition.
reason	No	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	Yes	String	status is the status of the condition.
type	Yes	String	type is the type of the condition.

**Table 5-5128** io.k8s.api.apps.v1.StatefulSetStatus

Parameter	Mandatory	Type	Description
collisionCount	No	Integer	collisionCount is the count of hash collisions for the StatefulSet. The StatefulSet controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ControllerRevision.
conditions	No	Array of <a href="#">io.k8s.api.apps.v1.StatefulSetCondition</a> objects	Represents the latest available observations of a statefulset's current state.
currentReplicas	No	Integer	currentReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by currentRevision.
currentRevision	No	String	currentRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [0,currentReplicas).

Parameter	Mandatory	Type	Description
observedGeneration	No	Long	observedGeneration is the most recent generation observed for this StatefulSet. It corresponds to the StatefulSet's generation, which is updated on mutation by the API Server.
readyReplicas	No	Integer	readyReplicas is the number of Pods created by the StatefulSet controller that have a Ready Condition.
replicas	Yes	Integer	replicas is the number of Pods created by the StatefulSet controller.
updateRevision	No	String	updateRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [replicas-updatedReplicas,replicas)
updatedReplicas	No	Integer	updatedReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by updateRevision.

**Table 5-5129** io.k8s.api.apps.v1.StatefulSetCondition

Parameter	Mandatory	Type	Description
lastTransitionTime	No	String	Last time the condition transitioned from one status to another.
message	No	String	A human readable message indicating details about the transition.
reason	No	String	The reason for the condition's last transition.
status	Yes	String	Status of the condition, one of True, False, Unknown.
type	Yes	String	Type of statefulset condition.

## Response Parameters

Status code: 200

**Table 5-5130** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	<a href="#">io.k8s.api.apps.v1.StatefulSetSpec</a> object	Spec defines the desired identities of pods in this set.
status	<a href="#">io.k8s.api.apps.v1.StatefulSetStatus</a> object	Status is the current status of Pods in this StatefulSet. This data may be out of date by some window of time.

**Table 5-5131** io.k8s.api.apps.v1.StatefulSetSpec

Parameter	Type	Description
podManagementPolicy	String	podManagementPolicy controls how pods are created during initial scale up, when replacing pods on nodes, or when scaling down. The default policy is <i>OrderedReady</i> , where pods are created in increasing order (pod-0, then pod-1, etc) and the controller will wait until each pod is ready before continuing. When scaling down, the pods are removed in the opposite order. The alternative policy is <i>Parallel</i> which will create pods in parallel to match the desired scale without waiting, and on scale down will delete all pods at once.
replicas	Integer	replicas is the desired number of replicas of the given Template. These are replicas in the sense that they are instantiations of the same Template, but individual replicas also have a consistent identity. If unspecified, defaults to 1.
revisionHistoryLimit	Integer	revisionHistoryLimit is the maximum number of revisions that will be maintained in the StatefulSet's revision history. The revision history consists of all revisions not represented by a currently applied StatefulSetSpec version. The default value is 10.
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	selector is a label query over pods that should match the replica count. It must match the pod template's labels. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>
serviceName	String	serviceName is the name of the service that governs this StatefulSet. This service must exist before the StatefulSet, and is responsible for the network identity of the set. Pods get DNS/hostnames that follow the pattern: pod-specific-string.serviceName.default.svc.cluster.local where "pod-specific-string" is managed by the StatefulSet controller.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	template is the object that describes the pod that will be created if insufficient replicas are detected. Each pod stamped out by the StatefulSet will fulfill this Template, but have a unique identity from the rest of the StatefulSet.



Parameter	Type	Description
updateStrategy	<a href="#">io.k8s.api.apps.v1.StatefulSetUpdateStrategy</a> object	updateStrategy indicates the StatefulSetUpdateStrategy that will be employed to update Pods in the StatefulSet when a revision is made to Template.
volumeClaimTemplates	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> objects	volumeClaimTemplates is a list of claims that pods are allowed to reference. The StatefulSet controller is responsible for mapping network identities to claims in a way that maintains the identity of a pod. Every claim in this list must have at least one matching (by name) volumeMount in one container in the template. A claim in this list takes precedence over any volumes in the template, with the same name.

**Table 5-5132** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-5133** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.

Parameter	Type	Description
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.

Parameter	Type	Description
hostname	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/apis/core/v1/#pod-readiness-gate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-5134** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-5135** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-5136** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.

Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-5137** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-5138** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-5139** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.



Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-5140** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-5141** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-5142** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-5143** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-5144** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-5145** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-5146** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5147** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-5148** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-5149** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.



Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5150** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-5151** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-5152** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-5153** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-5154** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-5155** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-5156** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-5157** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-5158** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-5159** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-5160** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.



Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5161** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-5162** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-5163** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-5164** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-5165** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-5166** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-5167** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-5168** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-5169** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-5170** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-5171** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-5172** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>
fsGroupChangePolicy	String	<p>fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".</p>
runAsGroup	Long	<p>The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>
runAsNonRoot	Boolean	<p>Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.</p>
runAsUser	Long	<p>The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5173** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-5174** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-5175** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-5176** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5177** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-5178** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.



Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-5179** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-5180** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-5181** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-5182** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-5183** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-5184** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-5185** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.



Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-5186** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-5187** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-5188** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-5189** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-5190** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-5191** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-5192** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-5193** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-5194** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-5195** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-5196** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-5197** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-5198** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-5199** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>



Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-5200** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-5201** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-5202** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-5203** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-5204** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-5205** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-5206** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-5207** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-5208** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-5209** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-5210** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-5211** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-5212** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-5213** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-5214** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-5215** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-5216** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-5217** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.



Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-5218** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-5219** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-5220** io.k8s.api.apps.v1.StatefulSetUpdateStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy</a> object	RollingUpdate is used to communicate parameters when Type is RollingUpdateStatefulSetStrategyType.
type	String	Type indicates the type of the StatefulSetUpdateStrategy. Default is RollingUpdate.

**Table 5-5221** io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy

Parameter	Type	Description
partition	Integer	Partition indicates the ordinal at which the StatefulSet should be partitioned. Default value is 0.

**Table 5-5222** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-5223** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-5224** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-5225** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-5226** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>



Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-5227** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-5228** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-5229** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-5230** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-5231** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-5232** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Table 5-5233** io.k8s.api.apps.v1.StatefulSetStatus

Parameter	Type	Description
collisionCount	Integer	collisionCount is the count of hash collisions for the StatefulSet. The StatefulSet controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ControllerRevision.
conditions	Array of <a href="#">io.k8s.api.apps.v1.StatefulSetCondition</a> objects	Represents the latest available observations of a statefulset's current state.
currentReplicas	Integer	currentReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by currentRevision.
currentRevision	String	currentRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [0,currentReplicas).
observedGeneration	Long	observedGeneration is the most recent generation observed for this StatefulSet. It corresponds to the StatefulSet's generation, which is updated on mutation by the API Server.
readyReplicas	Integer	readyReplicas is the number of Pods created by the StatefulSet controller that have a Ready Condition.
replicas	Integer	replicas is the number of Pods created by the StatefulSet controller.
updateRevision	String	updateRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [replicas-updatedReplicas,replicas)

Parameter	Type	Description
updatedReplicas	Integer	updatedReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by updateRevision.

**Table 5-5234** io.k8s.api.apps.v1.StatefulSetCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of statefulset condition.

**Status code: 201**

**Table 5-5235** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.

Parameter	Type	Description
spec	<a href="#">io.k8s.api.apps.v1.StatefulSetSpec</a> object	Spec defines the desired identities of pods in this set.
status	<a href="#">io.k8s.api.apps.v1.StatefulSetStatus</a> object	Status is the current status of Pods in this StatefulSet. This data may be out of date by some window of time.

**Table 5-5236** io.k8s.api.apps.v1.StatefulSetSpec

Parameter	Type	Description
podManagementPolicy	String	podManagementPolicy controls how pods are created during initial scale up, when replacing pods on nodes, or when scaling down. The default policy is <i>OrderedReady</i> , where pods are created in increasing order (pod-0, then pod-1, etc) and the controller will wait until each pod is ready before continuing. When scaling down, the pods are removed in the opposite order. The alternative policy is <i>Parallel</i> which will create pods in parallel to match the desired scale without waiting, and on scale down will delete all pods at once.
replicas	Integer	replicas is the desired number of replicas of the given Template. These are replicas in the sense that they are instantiations of the same Template, but individual replicas also have a consistent identity. If unspecified, defaults to 1.
revisionHistoryLimit	Integer	revisionHistoryLimit is the maximum number of revisions that will be maintained in the StatefulSet's revision history. The revision history consists of all revisions not represented by a currently applied StatefulSetSpec version. The default value is 10.
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	selector is a label query over pods that should match the replica count. It must match the pod template's labels. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>

Parameter	Type	Description
serviceName	String	serviceName is the name of the service that governs this StatefulSet. This service must exist before the StatefulSet, and is responsible for the network identity of the set. Pods get DNS/hostnames that follow the pattern: pod-specific-string.serviceName.default.svc.cluster.local where "pod-specific-string" is managed by the StatefulSet controller.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	template is the object that describes the pod that will be created if insufficient replicas are detected. Each pod stamped out by the StatefulSet will fulfill this Template, but have a unique identity from the rest of the StatefulSet.
updateStrategy	<a href="#">io.k8s.api.apps.v1.StatefulSetUpdateStrategy</a> object	updateStrategy indicates the StatefulSetUpdateStrategy that will be employed to update Pods in the StatefulSet when a revision is made to Template.
volumeClaimTemplates	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> objects	volumeClaimTemplates is a list of claims that pods are allowed to reference. The StatefulSet controller is responsible for mapping network identities to claims in a way that maintains the identity of a pod. Every claim in this list must have at least one matching (by name) volumeMount in one container in the template. A claim in this list takes precedence over any volumes in the template, with the same name.

**Table 5-5237** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-5238** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.



Parameter	Type	Description
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>

Parameter	Type	Description
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.

Parameter	Type	Description
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://github.com/kubernetes/api/blob/master/core/v1/pod_readiness_gates.go">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="https://github.com/kubernetes/api/blob/master/core/v1/pod_security_context.go">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.

Parameter	Type	Description
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="https://kubernetes.io/docs/reference/generated/kubernetes-api/v1.27/#toleration-v1-core">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.

Parameter	Type	Description
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-5239** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-5240** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-5241** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-5242** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-5243** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-5244** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-5245** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-5246** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringSchedulingIgnoredDuringExecution anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.



**Table 5-5247** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-5248** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-5249** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-5250** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-5251** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5252** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-5253** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-5254** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.



Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5255** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-5256** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-5257** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-5258** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-5259** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-5260** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-5261** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-5262** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-5263** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-5264** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-5265** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5266** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-5267** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCP socket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-5268** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-5269** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.



**Table 5-5270** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-5271** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-5272** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-5273** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-5274** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-5275** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-5276** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-5277** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5278** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-5279** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-5280** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-5281** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5282** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-5283** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-5284** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>



Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-5285** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-5286** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-5287** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-5288** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-5289** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-5290** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-5291** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-5292** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-5293** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-5294** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).



Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-5295** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-5296** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-5297** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-5298** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-5299** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-5300** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-5301** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-5302** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-5303** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-5304** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-5305** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-5306** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-5307** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-5308** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-5309** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-5310** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project



Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-5311** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-5312** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-5313** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-5314** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-5315** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-5316** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-5317** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-5318** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-5319** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-5320** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-5321** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-5322** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-5323** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-5324** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-5325** io.k8s.api.apps.v1.StatefulSetUpdateStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy</a> object	RollingUpdate is used to communicate parameters when Type is RollingUpdateStatefulSetStrategyType.
type	String	Type indicates the type of the StatefulSetUpdateStrategy. Default is RollingUpdate.

**Table 5-5326** io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy

Parameter	Type	Description
partition	Integer	Partition indicates the ordinal at which the StatefulSet should be partitioned. Default value is 0.

**Table 5-5327** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>



Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-5328** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-5329** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-5330** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-5331** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-5332** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-5333** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-5334** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-5335** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.



Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-5336** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-5337** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Table 5-5338** io.k8s.api.apps.v1.StatefulSetStatus

Parameter	Type	Description
collisionCount	Integer	collisionCount is the count of hash collisions for the StatefulSet. The StatefulSet controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ControllerRevision.
conditions	Array of <a href="#">io.k8s.api.apps.v1.StatefulSetCondition</a> objects	Represents the latest available observations of a statefulset's current state.
currentReplicas	Integer	currentReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by currentRevision.
currentRevision	String	currentRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [0,currentReplicas).
observedGeneration	Long	observedGeneration is the most recent generation observed for this StatefulSet. It corresponds to the StatefulSet's generation, which is updated on mutation by the API Server.
readyReplicas	Integer	readyReplicas is the number of Pods created by the StatefulSet controller that have a Ready Condition.
replicas	Integer	replicas is the number of Pods created by the StatefulSet controller.
updateRevision	String	updateRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [replicas-updatedReplicas,replicas)

Parameter	Type	Description
updatedReplicas	Integer	updatedReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by updateRevision.

**Table 5-5339** io.k8s.api.apps.v1.StatefulSetCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of statefulset condition.

## Example Requests

Changing the **replicas** value of an existing StatefulSet to 2

```
{
  "apiVersion": "apps/v1",
  "kind": "StatefulSet",
  "metadata": {
    "name": "statefulset-test"
  },
  "spec": {
    "replicas": 2,
    "selector": {
      "matchLabels": {
        "app": "statefulset-test"
      }
    },
    "serviceName": "statefulset-test",
    "template": {
      "metadata": {
        "labels": {
          "app": "statefulset-test"
        }
      },
      "spec": {
        "containers": [ {
          "image": "**.*:20202/cci/redis:v1",
          "name": "container-0",
          "resources": {
            "limits": {
              "cpu": "500m",
              "memory": "1024Mi"
            },
            "requests": {
              "cpu": "500m",
```

```
        "memory": "1024Mi"
      }
    }
  },
  "imagePullSecrets": [ {
    "name": "imagepull-secret"
  } ]
}
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "apps/v1",
  "kind": "StatefulSet",
  "metadata": {
    "creationTimestamp": "2018-09-04T07:13:00Z",
    "generation": 2,
    "labels": {
      "app": "statefulset-test"
    },
    "name": "statefulset-test",
    "namespace": "namespace-test",
    "resourceVersion": "5223616",
    "selfLink": "/apis/apps/v1/namespaces/namespace-test/statefulsets/statefulset-test",
    "uid": "f4a35f35-b011-11e8-b6ef-f898ef6c78b4"
  },
  "spec": {
    "podManagementPolicy": "OrderedReady",
    "replicas": 2,
    "revisionHistoryLimit": 10,
    "selector": {
      "matchLabels": {
        "app": "statefulset-test"
      }
    },
    "serviceName": "",
    "template": {
      "metadata": {
        "creationTimestamp": null,
        "labels": {
          "app": "statefulset-test"
        }
      },
      "spec": {
        "containers": [ {
          "image": "redis",
          "imagePullPolicy": "IfNotPresent",
          "name": "container-0",
          "resources": {
            "limits": {
              "cpu": "500m",
              "memory": "1Gi"
            },
            "requests": {
              "cpu": "500m",
              "memory": "1Gi"
            }
          }
        },
        "terminationMessagePath": "/dev/termination-log",
        "terminationMessagePolicy": "File"
      }
    },
    "dnsPolicy": "ClusterFirst",
```

```

"imagePullSecrets" : [ {
  "name" : "imagepull-secret"
} ],
"restartPolicy" : "Always",
"schedulerName" : "default-scheduler",
"securityContext" : { }
}
},
"updateStrategy" : {
  "type" : "OnDelete"
}
},
"status" : {
  "collisionCount" : 0,
  "currentReplicas" : 3,
  "currentRevision" : "statefulset-test-f986b645b",
  "observedGeneration" : 1,
  "readyReplicas" : 1,
  "replicas" : 3,
  "updateRevision" : "statefulset-test-f986b645b"
}
}
}

```

## Status Codes

Status Code	Description
200	OK
201	Created
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.19.8 Querying the Status of a StatefulSet

### Function

This API is used to query the status of a specified StatefulSet.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/apps/v1/namespaces/{namespace}/statefulsets/{name}/status

**Table 5-5340** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the StatefulSet
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-5341** Query Parameters

Parameter	Mandatory	Type	Description
pretty	No	String	If 'true', then the output is pretty printed.

### Request Parameters

**Table 5-5342** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

### Response Parameters

**Status code: 200**

**Table 5-5343** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	<a href="#">io.k8s.api.apps.v1.StatefulSetSpec</a> object	Spec defines the desired identities of pods in this set.
status	<a href="#">io.k8s.api.apps.v1.StatefulSetStatus</a> object	Status is the current status of Pods in this StatefulSet. This data may be out of date by some window of time.

**Table 5-5344** io.k8s.api.apps.v1.StatefulSetSpec

Parameter	Type	Description
podManagementPolicy	String	podManagementPolicy controls how pods are created during initial scale up, when replacing pods on nodes, or when scaling down. The default policy is <i>OrderedReady</i> , where pods are created in increasing order (pod-0, then pod-1, etc) and the controller will wait until each pod is ready before continuing. When scaling down, the pods are removed in the opposite order. The alternative policy is <i>Parallel</i> which will create pods in parallel to match the desired scale without waiting, and on scale down will delete all pods at once.

Parameter	Type	Description
replicas	Integer	replicas is the desired number of replicas of the given Template. These are replicas in the sense that they are instantiations of the same Template, but individual replicas also have a consistent identity. If unspecified, defaults to 1.
revisionHistoryLimit	Integer	revisionHistoryLimit is the maximum number of revisions that will be maintained in the StatefulSet's revision history. The revision history consists of all revisions not represented by a currently applied StatefulSetSpec version. The default value is 10.
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	selector is a label query over pods that should match the replica count. It must match the pod template's labels. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>
serviceName	String	serviceName is the name of the service that governs this StatefulSet. This service must exist before the StatefulSet, and is responsible for the network identity of the set. Pods get DNS/hostnames that follow the pattern: pod-specific-string.serviceName.default.svc.cluster.local where "pod-specific-string" is managed by the StatefulSet controller.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	template is the object that describes the pod that will be created if insufficient replicas are detected. Each pod stamped out by the StatefulSet will fulfill this Template, but have a unique identity from the rest of the StatefulSet.
updateStrategy	<a href="#">io.k8s.api.apps.v1.StatefulSetUpdateStrategy</a> object	updateStrategy indicates the StatefulSetUpdateStrategy that will be employed to update Pods in the StatefulSet when a revision is made to Template.
volumeClaimTemplates	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> objects	volumeClaimTemplates is a list of claims that pods are allowed to reference. The StatefulSet controller is responsible for mapping network identities to claims in a way that maintains the identity of a pod. Every claim in this list must have at least one matching (by name) volumeMount in one container in the template. A claim in this list takes precedence over any volumes in the template, with the same name.



**Table 5-5345** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-5346** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.

Parameter	Type	Description
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>

Parameter	Type	Description
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	nodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/objects/PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-5347** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-5348** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-5349** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.

Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-5350** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-5351** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-5352** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.



Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-5353** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-5354** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-5355** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-5356** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-5357** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-5358** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-5359** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5360** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-5361** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-5362** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.



Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5363** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-5364** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-5365** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-5366** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-5367** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-5368** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-5369** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-5370** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-5371** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-5372** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-5373** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.



Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5374** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-5375** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-5376** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-5377** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-5378** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-5379** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-5380** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-5381** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-5382** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-5383** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-5384** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-5385** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5386** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-5387** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-5388** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-5389** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5390** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-5391** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.



Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-5392** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-5393** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-5394** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-5395** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-5396** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-5397** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-5398** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.



Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-5399** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-5400** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-5401** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-5402** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-5403** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-5404** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-5405** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-5406** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-5407** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-5408** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-5409** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-5410** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-5411** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-5412** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>



Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-5413** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-5414** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-5415** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-5416** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-5417** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-5418** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-5419** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-5420** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-5421** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-5422** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-5423** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-5424** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-5425** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-5426** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-5427** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-5428** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-5429** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-5430** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.



Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-5431** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-5432** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-5433** io.k8s.api.apps.v1.StatefulSetUpdateStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy</a> object	RollingUpdate is used to communicate parameters when Type is RollingUpdateStatefulSetStrategyType.
type	String	Type indicates the type of the StatefulSetUpdateStrategy. Default is RollingUpdate.

**Table 5-5434** io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy

Parameter	Type	Description
partition	Integer	Partition indicates the ordinal at which the StatefulSet should be partitioned. Default value is 0.

**Table 5-5435** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-5436** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-5437** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-5438** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-5439** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>



Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-5440** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-5441** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-5442** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-5443** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-5444** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-5445** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Table 5-5446** io.k8s.api.apps.v1.StatefulSetStatus

Parameter	Type	Description
collisionCount	Integer	collisionCount is the count of hash collisions for the StatefulSet. The StatefulSet controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ControllerRevision.
conditions	Array of <a href="#">io.k8s.api.apps.v1.StatefulSetCondition</a> objects	Represents the latest available observations of a statefulset's current state.
currentReplicas	Integer	currentReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by currentRevision.
currentRevision	String	currentRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [0,currentReplicas).
observedGeneration	Long	observedGeneration is the most recent generation observed for this StatefulSet. It corresponds to the StatefulSet's generation, which is updated on mutation by the API Server.
readyReplicas	Integer	readyReplicas is the number of Pods created by the StatefulSet controller that have a Ready Condition.
replicas	Integer	replicas is the number of Pods created by the StatefulSet controller.
updateRevision	String	updateRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [replicas-updatedReplicas,replicas)

Parameter	Type	Description
updatedReplicas	Integer	updatedReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by updateRevision.

**Table 5-5447** io.k8s.api.apps.v1.StatefulSetCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of statefulset condition.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "apps/v1",
  "kind": "StatefulSet",
  "metadata": {
    "creationTimestamp": "2018-09-04T07:13:00Z",
    "generation": 1,
    "labels": {
      "app": "statefulset-test"
    },
    "name": "statefulset-test",
    "namespace": "namespace-test",
    "resourceVersion": "5217947",
    "selfLink": "/apis/apps/v1/namespaces/namespace-test/statefulsets/statefulset-test/status",
    "uid": "f4a35f35-b011-11e8-b6ef-f898ef6c78b4"
  },
  "spec": {
    "podManagementPolicy": "OrderedReady",
    "replicas": 3,
    "revisionHistoryLimit": 10,
    "selector": {
      "matchLabels": {
        "app": "statefulset-test"
      }
    }
  }
}
```

```

},
"serviceName": "",
"template": {
  "metadata": {
    "annotations": {
      "cri.cci.io/container-type": "secure-container"
    },
    "creationTimestamp": null,
    "labels": {
      "app": "statefulset-test"
    }
  },
  "spec": {
    "containers": [ {
      "image": "**:*:*:20202/cci/redis:V1",
      "imagePullPolicy": "IfNotPresent",
      "name": "container-0",
      "resources": {
        "limits": {
          "cpu": "500m",
          "memory": "1Gi"
        },
        "requests": {
          "cpu": "500m",
          "memory": "1Gi"
        }
      },
      "terminationMessagePath": "/dev/termination-log",
      "terminationMessagePolicy": "File"
    } ],
    "dnsPolicy": "ClusterFirst",
    "imagePullSecrets": [ {
      "name": "imagepull-secret"
    } ],
    "restartPolicy": "Always",
    "schedulerName": "default-scheduler",
    "securityContext": { }
  }
},
"updateStrategy": {
  "type": "OnDelete"
},
"status": {
  "collisionCount": 0,
  "currentReplicas": 3,
  "currentRevision": "statefulset-test-f986b645b",
  "observedGeneration": 1,
  "readyReplicas": 1,
  "replicas": 3,
  "updateRevision": "statefulset-test-f986b645b"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden

Status Code	Description
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.19.9 Querying All StatefulSets

### Function

This API is used to list all StatefulSet resource objects.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/apps/v1/statefulsets

**Table 5-5448** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.



Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>
pretty	No	String	If 'true', then the output is pretty printed.

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.

## Request Parameters

**Table 5-5449** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-5450** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.apps.v1.StatefulSet</a> objects	StatefulSet represents a set of pods with consistent identities. Identities are defined as: <ul style="list-style-type: none"> <li>• Network: A single stable DNS and hostname.</li> <li>• Storage: As many VolumeClaims as requested. The StatefulSet guarantees that a given network identity will always map to the same storage identity.</li> </ul>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	ListMeta describes metadata that synthetic resources must have, including lists and various status objects. A resource may have only one of {ObjectMeta, ListMeta}.

**Table 5-5451** io.k8s.api.apps.v1.StatefulSet

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	ObjectMeta is metadata that all persisted resources must have, which includes all objects users must create.
spec	<a href="#">io.k8s.api.apps.v1.StatefulSetSpec</a> object	Spec defines the desired identities of pods in this set.
status	<a href="#">io.k8s.api.apps.v1.StatefulSetStatus</a> object	Status is the current status of Pods in this StatefulSet. This data may be out of date by some window of time.

**Table 5-5452** io.k8s.api.apps.v1.StatefulSetSpec

Parameter	Type	Description
podManagementPolicy	String	podManagementPolicy controls how pods are created during initial scale up, when replacing pods on nodes, or when scaling down. The default policy is <i>OrderedReady</i> , where pods are created in increasing order (pod-0, then pod-1, etc) and the controller will wait until each pod is ready before continuing. When scaling down, the pods are removed in the opposite order. The alternative policy is <i>Parallel</i> which will create pods in parallel to match the desired scale without waiting, and on scale down will delete all pods at once.
replicas	Integer	replicas is the desired number of replicas of the given Template. These are replicas in the sense that they are instantiations of the same Template, but individual replicas also have a consistent identity. If unspecified, defaults to 1.

Parameter	Type	Description
revisionHistoryLimit	Integer	revisionHistoryLimit is the maximum number of revisions that will be maintained in the StatefulSet's revision history. The revision history consists of all revisions not represented by a currently applied StatefulSetSpec version. The default value is 10.
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	selector is a label query over pods that should match the replica count. It must match the pod template's labels. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>
serviceName	String	serviceName is the name of the service that governs this StatefulSet. This service must exist before the StatefulSet, and is responsible for the network identity of the set. Pods get DNS/hostnames that follow the pattern: pod-specific-string.serviceName.default.svc.cluster.local where "pod-specific-string" is managed by the StatefulSet controller.
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	template is the object that describes the pod that will be created if insufficient replicas are detected. Each pod stamped out by the StatefulSet will fulfill this Template, but have a unique identity from the rest of the StatefulSet.
updateStrategy	<a href="#">io.k8s.api.apps.v1.StatefulSetUpdateStrategy</a> object	updateStrategy indicates the StatefulSetUpdateStrategy that will be employed to update Pods in the StatefulSet when a revision is made to Template.
volumeClaimTemplates	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaim</a> objects	volumeClaimTemplates is a list of claims that pods are allowed to reference. The StatefulSet controller is responsible for mapping network identities to claims in a way that maintains the identity of a pod. Every claim in this list must have at least one matching (by name) volumeMount in one container in the template. A claim in this list takes precedence over any volumes in the template, with the same name.

**Table 5-5453** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-5454** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.

Parameter	Type	Description
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>



Parameter	Type	Description
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	nodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="#">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-5455** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-5456** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-5457** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.

Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-5458** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-5459** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-5460** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-5461** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-5462** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-5463** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.



**Table 5-5464** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-5465** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-5466** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-5467** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5468** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-5469** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-5470** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.



Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5471** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-5472** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-5473** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-5474** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-5475** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-5476** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-5477** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-5478** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-5479** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-5480** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-5481** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5482** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-5483** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-5484** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-5485** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.



**Table 5-5486** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-5487** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-5488** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-5489** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-5490** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-5491** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-5492** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-5493** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5494** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-5495** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-5496** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-5497** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5498** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-5499** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-5500** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>



Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-5501** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-5502** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-5503** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-5504** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-5505** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-5506** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-5507** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-5508** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-5509** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-5510** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).



Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-5511** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-5512** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-5513** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-5514** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-5515** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-5516** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-5517** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-5518** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-5519** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-5520** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-5521** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-5522** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-5523** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-5524** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-5525** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-5526** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project



Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-5527** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-5528** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-5529** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-5530** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-5531** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-5532** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-5533** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-5534** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-5535** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-5536** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-5537** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-5538** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-5539** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-5540** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-5541** io.k8s.api.apps.v1.StatefulSetUpdateStrategy

Parameter	Type	Description
rollingUpdate	<a href="#">io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy</a> object	RollingUpdate is used to communicate parameters when Type is RollingUpdateStatefulSetStrategyType.
type	String	Type indicates the type of the StatefulSetUpdateStrategy. Default is RollingUpdate.

**Table 5-5542** io.k8s.api.apps.v1.RollingUpdateStatefulSetStrategy

Parameter	Type	Description
partition	Integer	Partition indicates the ordinal at which the StatefulSet should be partitioned. Default value is 0.

**Table 5-5543** io.k8s.api.core.v1.PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>



Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
status	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>

**Table 5-5544** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.  Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-5545** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-5546** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-5547** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-5548** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-5549** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-5550** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-5551** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.



Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-5552** io.k8s.api.core.v1.PersistentVolumeClaimStatus

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>
capacity	Map<String,String>	Represents the actual resources of the underlying volume.
conditions	Array of <a href="#">io.k8s.api.core.v1.PersistentVolumeClaimCondition</a> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to 'ResizeStarted'.
phase	String	Phase represents the current phase of PersistentVolumeClaim.

**Table 5-5553** io.k8s.api.core.v1.PersistentVolumeClaimCondition

Parameter	Type	Description
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	Human-readable message indicating details about last transition.

Parameter	Type	Description
reason	String	Unique, this should be a short, machine understandable string that gives the reason for condition's last transition. If it reports "ResizeStarted" that means the underlying persistent volume is being resized.
status	String	status is the status of the condition.
type	String	type is the type of the condition.

**Table 5-5554** io.k8s.api.apps.v1.StatefulSetStatus

Parameter	Type	Description
collisionCount	Integer	collisionCount is the count of hash collisions for the StatefulSet. The StatefulSet controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ControllerRevision.
conditions	Array of <a href="#">io.k8s.api.apps.v1.StatefulSetCondition</a> objects	Represents the latest available observations of a statefulset's current state.
currentReplicas	Integer	currentReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by currentRevision.
currentRevision	String	currentRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [0,currentReplicas).
observedGeneration	Long	observedGeneration is the most recent generation observed for this StatefulSet. It corresponds to the StatefulSet's generation, which is updated on mutation by the API Server.
readyReplicas	Integer	readyReplicas is the number of Pods created by the StatefulSet controller that have a Ready Condition.
replicas	Integer	replicas is the number of Pods created by the StatefulSet controller.
updateRevision	String	updateRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [replicas-updatedReplicas,replicas)

Parameter	Type	Description
updatedReplicas	Integer	updatedReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by updateRevision.

**Table 5-5555** io.k8s.api.apps.v1.StatefulSetCondition

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transitioned from one status to another.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of statefulset condition.

**Table 5-5556** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.

Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "apps/v1beta1",
  "items": [ {
    "metadata": {
      "creationTimestamp": "2017-04-18T06:05:02Z",
      "generateName": "sz",
      "generation": 1,
      "labels": {
```

```
"app" : "mysql"
},
"name" : "mysql",
"namespace" : "default",
"resourceVersion" : "1809843",
"selfLink" : "/apis/apps/v1beta1/namespaces/default/statefulsets/mysql",
"uid" : "f5cf50f5-23fc-11e7-9c83-fa163ec08232"
},
"spec" : {
  "replicas" : 1,
  "selector" : {
    "matchLabels" : {
      "app" : "mysql"
    }
  },
  "serviceName" : "mysql-service",
  "template" : {
    "metadata" : {
      "creationTimestamp" : null,
      "labels" : {
        "app" : "mysql"
      },
      "name" : "-sz"
    },
    "spec" : {
      "containers" : [ {
        "image" : "10.154.52.159:443/test/nginx:latest",
        "imagePullPolicy" : "IfNotPresent",
        "name" : "container01",
        "ports" : [ {
          "containerPort" : 80,
          "protocol" : "TCP"
        } ],
        "resources" : { },
        "terminationMessagePath" : "/dev/termination-log"
      } ],
      "dnsPolicy" : "ClusterFirst",
      "restartPolicy" : "Always",
      "securityContext" : { }
    }
  },
  "volumeClaimTemplates" : [ {
    "metadata" : {
      "creationTimestamp" : null,
      "name" : "db"
    },
    "spec" : {
      "accessModes" : [ "ReadWriteOnce" ],
      "resources" : {
        "requests" : {
          "storage" : "1Gi"
        }
      }
    }
  },
  "status" : {
    "phase" : "Pending"
  }
} ]
},
"status" : {
  "replicas" : 1
}
} ],
"kind" : "StatefulSetList",
"metadata" : {
  "resourceVersion" : "1809953",
  "selfLink" : "/apis/apps/v1beta1/statefulsets"
}
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.20 Job

### 5.20.1 Querying All Jobs

#### Function

This API is used to obtain a Job list.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /apis/batch/v1/jobs

**Table 5-5557** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.



Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>
pretty	No	String	If 'true', then the output is pretty printed.

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.

## Request Parameters

**Table 5-5558** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-5559** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.batch.v1.Job</a> objects	items is the list of Jobs.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

**Table 5-5560** io.k8s.api.batch.v1.Job

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.batch.v1.JobSpec</a> object	Specification of the desired behavior of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.batch.v1.JobStatus</a> object	Current status of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-5561** io.k8s.api.batch.v1.JobSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Specifies the duration in seconds relative to the startTime that the job may be active before the system tries to terminate it; value must be positive integer
backoffLimit	Integer	Specifies the number of retries before marking this job failed. Defaults to 6
completions	Integer	Specifies the desired number of successfully finished pods the job should be run with. Setting to nil means that the success of any pod signals the success of all pods, and allows parallelism to have any positive value. Setting to 1 means that parallelism is limited to 1 and the success of that pod signals the success of the job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>

Parameter	Type	Description
manualSelector or	Boolean	manualSelector controls generation of pod labels and pod selectors. Leave <i>manualSelector</i> unset unless you are certain what you are doing. When false or unset, the system pick labels unique to this job and appends those labels to the pod template. When true, the user is responsible for picking unique labels and specifying the selector. Failure to pick a unique label may cause this and other jobs to not function correctly. However, You may see <i>manualSelector=true</i> in jobs that were created with the old <i>extensions/v1beta1</i> API. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector</a>
parallelism	Integer	Specifies the maximum desired number of pods the job should run at any given time. The actual number of pods running in steady state will be less than this number when $((.spec.completions - .status.successful) < .spec.parallelism)$ , i.e. when the work left to do is less than max parallelism. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over pods that should match the pod count. Normally, the system sets this field for you. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Describes the pod that will be created when executing a job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
ttlSecondsAfterFinished	Integer	ttlSecondsAfterFinished limits the lifetime of a Job that has finished execution (either Complete or Failed). If this field is set, ttlSecondsAfterFinished after the Job finishes, it is eligible to be automatically deleted. When the Job is being deleted, its lifecycle guarantees (e.g. finalizers) will be honored. If this field is unset, the Job won't be automatically deleted. If this field is set to zero, the Job becomes eligible to be deleted immediately after it finishes. This field is alpha-level and is only honored by servers that enable the TTLAfterFinished feature.

**Table 5-5562** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-5563** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.

Parameter	Type	Description
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>

Parameter	Type	Description
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	nodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>



Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/apis/core.v1/#pod-readiness-gate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-5564** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-5565** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-5566** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.

Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-5567** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-5568** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-5569** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-5570** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-5571** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-5572** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-5573** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-5574** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-5575** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option



**Table 5-5576** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5577** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-5578** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-5579** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5580** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".



Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-5581** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-5582** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-5583** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-5584** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-5585** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-5586** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-5587** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-5588** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-5589** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-5590** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5591** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-5592** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-5593** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-5594** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-5595** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-5596** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-5597** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-5598** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.



Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-5599** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-5600** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-5601** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-5602** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5603** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-5604** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-5605** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-5606** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5607** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-5608** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-5609** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>



Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-5610** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-5611** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-5612** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-5613** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-5614** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-5615** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-5616** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-5617** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-5618** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-5619** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-5620** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.



**Table 5-5621** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-5622** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-5623** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-5624** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-5625** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-5626** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-5627** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-5628** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.



Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-5629** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-5630** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-5631** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-5632** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-5633** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-5634** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-5635** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-5636** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-5637** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-5638** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-5639** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-5640** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-5641** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-5642** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-5643** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-5644** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-5645** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file



**Table 5-5646** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-5647** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-5648** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-5649** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-5650** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-5651** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-5652** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-5653** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-5654** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-5655** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-5656** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-5657** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-5658** io.k8s.api.batch.v1.JobStatus

Parameter	Type	Description
active	Integer	The number of actively running pods.
completionTime	String	Represents time when the job was completed. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
conditions	Array of <a href="#">io.k8s.api.batch.v1.JobCondition</a> objects	The latest available observations of an object's current state. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
failed	Integer	The number of pods which reached phase Failed.
startTime	String	Represents time when the job was acknowledged by the job controller. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
succeeded	Integer	The number of pods which reached phase Succeeded.

**Table 5-5659** io.k8s.api.batch.v1.JobCondition

Parameter	Type	Description
lastProbeTime	String	Last time the condition was checked.

Parameter	Type	Description
lastTransition Time	String	Last time the condition transit from one status to another.
message	String	Human readable message indicating details about last transition.
reason	String	(brief) reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of job condition, Complete or Failed.

**Table 5-5660** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItem mCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.



Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "batch/v1",
  "items": [ {
    "metadata": {
      "creationTimestamp": "2017-12-13T03:15:55Z",
      "labels": {
        "name": "job-test"
      },
      "name": "jobs-12130306",
      "namespace": "ns-12130306-s",
      "resourceVersion": "419064",
      "selfLink": "/apis/batch/v1/namespaces/ns-12130306-s/jobs/jobs-12130306",
      "uid": "eed6b02b-dfb3-11e7-9c19-fa163e2d897b"
    },
    "spec": {
      "completions": 1,
      "parallelism": 1,
      "selector": {
        "matchLabels": {
          "controller-uid": "eed6b02b-dfb3-11e7-9c19-fa163e2d897b"
        }
      },
      "template": {
        "metadata": {
          "creationTimestamp": null,
          "labels": {
            "controller-uid": "eed6b02b-dfb3-11e7-9c19-fa163e2d897b",
            "job-name": "jobs-12130306",
            "name": "job-test"
          }
        },

```

```

    "name" : "jobs-12130306"
  },
  "spec" : {
    "containers" : [ {
      "image" : "172.16.5.235:20202/test/redis:latest",
      "imagePullPolicy" : "Always",
      "name" : "jobs-12130306",
      "resources" : { },
      "terminationMessagePath" : "/dev/termination-log",
      "terminationMessagePolicy" : "File"
    } ],
    "dnsPolicy" : "ClusterFirst",
    "restartPolicy" : "Never",
    "schedulerName" : "default-scheduler",
    "securityContext" : { }
  }
},
"status" : {
  "active" : 1,
  "startTime" : "2017-12-13T03:15:55Z"
}
}],
"kind" : "JobList",
"metadata" : {
  "resourceVersion" : "419065",
  "selfLink" : "/apis/batch/v1/jobs"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.20.2 Deleting Jobs in a Namespace

### Function

This API is used to delete all jobs in a specified namespace.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /apis/batch/v1/namespaces/{namespace}/jobs

**Table 5-5661** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-5662** Query Parameters

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset

Parameter	Mandatory	Type	Description
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-5663** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>



**Table 5-5664** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-5665** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

Status code: 200

**Table 5-5666** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-5667** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-5668** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional.  Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"

Parameter	Type	Description
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-5669** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

- Deleting only the jobs (The pods are not deleted.)

```
{
  "apiVersion": "v1",
  "gracePeriodSeconds": 0,
  "kind": "DeleteOptions",
  "propagationPolicy": "Orphan"
}
```

- Deleting the pods and then the jobs

```
{
  "apiVersion": "v1",
  "kind": "DeleteOptions",
  "propagationPolicy": "Foreground"
}
```

- Deleting the jobs and then the pods

```
{
  "apiVersion": "v1",
  "kind": "DeleteOptions",
  "propagationPolicy": "Background"
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "batch/v1",
  "items": null,
  "kind": "JobList",
  "metadata": {
    "resourceVersion": "5415316",
    "selfLink": "/apis/batch/v1/namespaces/namespace-test/jobs"
  }
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

### 5.20.3 Querying Jobs in a Namespace

#### Function

This API is used to query the details about all jobs in a specified namespace.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /apis/batch/v1/namespaces/{namespace}/jobs

**Table 5-5670** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-5671** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.



Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

Table 5-5672 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

Table 5-5673 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.batch.v1.Job</a> objects	items is the list of Jobs.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>

**Table 5-5674** io.k8s.api.batch.v1.Job

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.batch.v1.JobSpec</a> object	Specification of the desired behavior of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.batch.v1.JobStatus</a> object	Current status of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-5675** io.k8s.api.batch.v1.JobSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Specifies the duration in seconds relative to the startTime that the job may be active before the system tries to terminate it; value must be positive integer
backoffLimit	Integer	Specifies the number of retries before marking this job failed. Defaults to 6

Parameter	Type	Description
completions	Integer	Specifies the desired number of successfully finished pods the job should be run with. Setting to nil means that the success of any pod signals the success of all pods, and allows parallelism to have any positive value. Setting to 1 means that parallelism is limited to 1 and the success of that pod signals the success of the job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
manualSelector	Boolean	manualSelector controls generation of pod labels and pod selectors. Leave <i>manualSelector</i> unset unless you are certain what you are doing. When false or unset, the system pick labels unique to this job and appends those labels to the pod template. When true, the user is responsible for picking unique labels and specifying the selector. Failure to pick a unique label may cause this and other jobs to not function correctly. However, You may see <i>manualSelector=true</i> in jobs that were created with the old <i>extensions/v1beta1</i> API. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector</a>
parallelism	Integer	Specifies the maximum desired number of pods the job should run at any given time. The actual number of pods running in steady state will be less than this number when $(.spec.completions - .status.successful) < .spec.parallelism$ , i.e. when the work left to do is less than max parallelism. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over pods that should match the pod count. Normally, the system sets this field for you. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Describes the pod that will be created when executing a job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>

Parameter	Type	Description
ttlSecondsAfterFinished	Integer	ttlSecondsAfterFinished limits the lifetime of a Job that has finished execution (either Complete or Failed). If this field is set, ttlSecondsAfterFinished after the Job finishes, it is eligible to be automatically deleted. When the Job is being deleted, its lifecycle guarantees (e.g. finalizers) will be honored. If this field is unset, the Job won't be automatically deleted. If this field is set to zero, the Job becomes eligible to be deleted immediately after it finishes. This field is alpha-level and is only honored by servers that enable the TTLAfterFinished feature.

**Table 5-5676** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-5677** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.

Parameter	Type	Description
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.



Parameter	Type	Description
hostname	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/apis/core.v1/#PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-5678** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-5679** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringSchedulingIgnoredDuringExecution affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-5680** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.

Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-5681** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-5682** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-5683** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-5684** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-5685** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-5686** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.



**Table 5-5687** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-5688** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-5689** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-5690** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5691** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-5692** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-5693** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.



Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5694** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-5695** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-5696** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-5697** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-5698** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-5699** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-5700** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-5701** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-5702** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-5703** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-5704** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5705** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-5706** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCP socket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-5707** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-5708** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.



**Table 5-5709** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-5710** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-5711** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-5712** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-5713** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-5714** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-5715** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-5716** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5717** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-5718** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-5719** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-5720** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5721** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-5722** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-5723** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>



Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-5724** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-5725** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-5726** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-5727** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-5728** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-5729** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-5730** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-5731** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-5732** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-5733** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).



Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-5734** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-5735** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-5736** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-5737** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-5738** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-5739** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.



Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-5740** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-5741** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-5742** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-5743** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-5744** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-5745** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-5746** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-5747** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-5748** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-5749** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-5750** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-5751** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-5752** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-5753** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-5754** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-5755** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-5756** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-5757** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project



Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-5758** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-5759** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-5760** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-5761** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-5762** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-5763** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-5764** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-5765** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-5766** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-5767** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-5768** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-5769** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-5770** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-5771** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-5772** io.k8s.api.batch.v1.JobStatus

Parameter	Type	Description
active	Integer	The number of actively running pods.
completionTime	String	Represents time when the job was completed. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
conditions	Array of <a href="#">io.k8s.api.batch.v1.JobCondition</a> objects	The latest available observations of an object's current state. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
failed	Integer	The number of pods which reached phase Failed.
startTime	String	Represents time when the job was acknowledged by the job controller. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
succeeded	Integer	The number of pods which reached phase Succeeded.

**Table 5-5773** io.k8s.api.batch.v1.JobCondition

Parameter	Type	Description
lastProbeTime	String	Last time the condition was checked.



Parameter	Type	Description
lastTransition Time	String	Last time the condition transit from one status to another.
message	String	Human readable message indicating details about last transition.
reason	String	(brief) reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of job condition, Complete or Failed.

**Table 5-5774** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItem mCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "batch/v1",
  "items": [ {
    "metadata": {
      "creationTimestamp": "2018-09-05T01:10:59Z",
      "labels": {
        "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4",
        "job-name": "pi"
      }
    },
    "name": "pi",
    "namespace": "namespace-test",
    "resourceVersion": "5391205",
    "selfLink": "/apis/batch/v1/namespaces/namespace-test/jobs/pi",
    "uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4"
  }
],
  "spec": {
    "backoffLimit": 6,
    "completions": 1,
    "parallelism": 1,
    "selector": {
      "matchLabels": {
        "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4"
      }
    }
  },
  "template": {
    "metadata": {
      "annotations": {
        "cri.cci.io/container-type": "secure-container"
      }
    },
    "creationTimestamp": null,

```

```

"labels": {
  "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4",
  "job-name": "pi"
},
"name": "pi"
},
"spec": {
  "containers": [ {
    "command": [ "perl", "-Mbignum=bpi", "-wle", "print bpi(2000)" ],
    "image": "perl",
    "imagePullPolicy": "Always",
    "name": "pi",
    "resources": {
      "limits": {
        "cpu": "500m",
        "memory": "1Gi"
      },
      "requests": {
        "cpu": "500m",
        "memory": "1Gi"
      }
    }
  },
  "terminationMessagePath": "/dev/termination-log",
  "terminationMessagePolicy": "File"
} ],
"dnsPolicy": "ClusterFirst",
"imagePullSecrets": [ {
  "name": "imagepull-secret"
} ],
"restartPolicy": "Never",
"schedulerName": "default-scheduler",
"securityContext": { }
}
},
"status": {
  "active": 1,
  "startTime": "2018-09-05T01:10:59Z"
}
} ],
"kind": "JobList",
"metadata": {
  "resourceVersion": "5391600",
  "selfLink": "/apis/batch/v1/namespaces/namespace-test/jobs"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable

Status Code	Description
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.20.4 Creating a Job

### Function

This API is used to create a job.

#### NOTE

Kubernetes sends a preStop event only when a pod is terminated. This means that the preStop event processing logic is not triggered when the pod is completed. This restriction is tracked in "Issue #55087" (<https://github.com/kubernetes/kubernetes/issues/55807>).

### Calling Method

For details, see [Calling APIs](#).

### URI

POST /apis/batch/v1/namespaces/{namespace}/jobs

**Table 5-5775** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-5776** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-5777** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-5778** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.batch.v1.JobSpec</a> object	Specification of the desired behavior of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	No	<a href="#">io.k8s.api.batch.v1.JobStatus</a> object	Current status of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-5779** io.k8s.api.batch.v1.JobSpec

Parameter	Mandatory	Type	Description
activeDeadlineSeconds	No	Long	Specifies the duration in seconds relative to the startTime that the job may be active before the system tries to terminate it; value must be positive integer
backoffLimit	No	Integer	Specifies the number of retries before marking this job failed. Defaults to 6
completions	No	Integer	Specifies the desired number of successfully finished pods the job should be run with. Setting to nil means that the success of any pod signals the success of all pods, and allows parallelism to have any positive value. Setting to 1 means that parallelism is limited to 1 and the success of that pod signals the success of the job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>

Parameter	Mandatory	Type	Description
manualSelector	No	Boolean	manualSelector controls generation of pod labels and pod selectors. Leave <i>manualSelector</i> unset unless you are certain what you are doing. When false or unset, the system pick labels unique to this job and appends those labels to the pod template. When true, the user is responsible for picking unique labels and specifying the selector. Failure to pick a unique label may cause this and other jobs to not function correctly. However, You may see <i>manualSelector=true</i> in jobs that were created with the old <i>extensions/v1beta1</i> API. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector</a>
parallelism	No	Integer	Specifies the maximum desired number of pods the job should run at any given time. The actual number of pods running in steady state will be less than this number when $((\text{.spec.completions} - \text{.status.successful}) < \text{.spec.parallelism})$ , i.e. when the work left to do is less than max parallelism. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
selector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over pods that should match the pod count. Normally, the system sets this field for you. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>



Parameter	Mandatory	Type	Description
template	Yes	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Describes the pod that will be created when executing a job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/job-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/job-run-to-completion/</a>
tTlSecondsAfterFinished	No	Integer	tTlSecondsAfterFinished limits the lifetime of a Job that has finished execution (either Complete or Failed). If this field is set, tTlSecondsAfterFinished after the Job finishes, it is eligible to be automatically deleted. When the Job is being deleted, its lifecycle guarantees (e.g. finalizers) will be honored. If this field is unset, the Job won't be automatically deleted. If this field is set to zero, the Job becomes eligible to be deleted immediately after it finishes. This field is alpha-level and is only honored by servers that enable the TTLAfterFinished feature.

**Table 5-5780** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Mandatory	Type	Description
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-5781** io.k8s.api.core.v1.PodSpec

Parameter	Mandatory	Type	Description
activeDeadlineSeconds	No	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	No	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	No	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Yes	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	No	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	No	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	No	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.

Parameter	Mandatory	Type	Description
ephemeralContainers	No	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	No	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	No	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	No	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	No	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	No	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.

Parameter	Mandatory	Type	Description
imagePullSecrets	No	Array of <a href="https://kubernetes.io/api-reference/v1/objects/LocalObjectReference">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	No	Array of <a href="https://kubernetes.io/api-reference/v1/objects/Container">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>

Parameter	Mandatory	Type	Description
nodeName	No	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	No	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	No	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.

Parameter	Mandatory	Type	Description
preemptionPolicy	No	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	No	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	No	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	No	Array of <a href="https://kubernetes.io/api-reference/v1.27/objects/PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Mandatory	Type	Description
restartPolicy	No	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	No	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	No	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	No	<a href="https://kubernetes.io/api-reference/v1.27/objects/podsecuritycontext">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceName	No	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceName instead.

Parameter	Mandatory	Type	Description
serviceAccountName	No	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	No	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	No	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.



Parameter	Mandatory	Type	Description
subdomain	No	String	If specified, the fully qualified Pod hostname will be "[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).svc.[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	No	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	No	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	No	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.

Parameter	Mandatory	Type	Description
volumes	No	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-5782** io.k8s.api.core.v1.Affinity

Parameter	Mandatory	Type	Description
nodeAffinity	No	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	No	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	No	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-5783** io.k8s.api.core.v1.NodeAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	No	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-5784** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Mandatory	Type	Description
preference	Yes	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.

Parameter	Mandatory	Type	Description
weight	Yes	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-5785** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	No	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-5786** io.k8s.api.core.v1.NodeSelector

Parameter	Mandatory	Type	Description
nodeSelectorTerms	Yes	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-5787** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	The label key that the selector applies to.
operator	Yes	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist, Gt, and Lt.

Parameter	Mandatory	Type	Description
values	No	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-5788** io.k8s.api.core.v1.PodAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Mandatory	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-5789** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Mandatory	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-5790** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Mandatory	Type	Description
podAffinityTerm	Yes	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Yes	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-5791** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Mandatory	Type	Description
labelSelector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	No	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"

Parameter	Mandatory	Type	Description
topologyKey	Yes	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-5792** io.k8s.api.core.v1.PodDNSConfig

Parameter	Mandatory	Type	Description
nameservers	No	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	No	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	No	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-5793** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Mandatory	Type	Description
name	No	String	Required.



Parameter	Mandatory	Type	Description
value	No	String	value is the value of the option

**Table 5-5794** io.k8s.api.core.v1.EphemeralContainer

Parameter	Mandatory	Type	Description
args	No	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$ (VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$ (VAR_NAME) syntax can be escaped with a double \$\$, ie: \$ \$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Mandatory	Type	Description
command	No	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	No	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	No	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	No	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Mandatory	Type	Description
imagePullPolicy	No	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	No	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	Yes	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	No	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	No	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.

Parameter	Mandatory	Type	Description
stdin	No	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	No	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	No	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.

Parameter	Mandatory	Type	Description
terminationMessagePath	No	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	No	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	No	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	No	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	No	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.

Parameter	Mandatory	Type	Description
workingDir	No	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5795** io.k8s.api.core.v1.HostAlias

Parameter	Mandatory	Type	Description
hostnames	No	Array of strings	Hostnames for the above IP address.
ip	No	String	IP address of the host file entry.

**Table 5-5796** io.k8s.api.core.v1.LocalObjectReference

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-5797** io.k8s.api.core.v1.Container

Parameter	Mandatory	Type	Description
args	No	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	No	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	No	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.

Parameter	Mandatory	Type	Description
envFrom	No	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	No	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	No	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	No	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>



Parameter	Mandatory	Type	Description
name	Yes	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	No	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>
securityContext	No	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>

Parameter	Mandatory	Type	Description
startupProbe	No	<a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	No	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	No	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false

Parameter	Mandatory	Type	Description
terminationMessagePath	No	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	No	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	No	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	No	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	No	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.

Parameter	Mandatory	Type	Description
workingDir	No	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5798** io.k8s.api.core.v1.EnvVar

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	No	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".
valueFrom	No	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-5799** io.k8s.api.core.v1.EnvVarSource

Parameter	Mandatory	Type	Description
configMapKeyRef	No	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.

Parameter	Mandatory	Type	Description
fieldRef	No	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports metadata.name, metadata.namespace, <i>metadata.labels['&lt;KEY&gt;']</i> , <i>metadata.annotations['&lt;KEY&gt;']</i> , spec.nodeName, spec.serviceAccountName, status.hostIP, status.podIP, status.podIPs.
resourceFieldRef	No	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	No	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-5800** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Mandatory	Type	Description
key	Yes	String	The key to select.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-5801** io.k8s.api.core.v1.SecretKeySelector

Parameter	Mandatory	Type	Description
key	Yes	String	The key of the secret to select from. Must be a valid secret key.

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret or its key must be defined

**Table 5-5802** io.k8s.api.core.v1.EnvFromSource

Parameter	Mandatory	Type	Description
configMapRef	No	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	No	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	No	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-5803** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap must be defined

**Table 5-5804** io.k8s.api.core.v1.SecretEnvSource

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret must be defined

**Table 5-5805** io.k8s.api.core.v1.Lifecycle

Parameter	Mandatory	Type	Description
postStart	No	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

Parameter	Mandatory	Type	Description
preStop	No	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-5806** io.k8s.api.core.v1.Handler

Parameter	Mandatory	Type	Description
exec	No	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	No	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
tcpSocket	No	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported



**Table 5-5807** io.k8s.api.core.v1.ContainerPort

Parameter	Mandatory	Type	Description
containerPort	Yes	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, $0 < x < 65536$ .
hostIP	No	String	What host IP to bind the external port to.
hostPort	No	Integer	Number of port to expose on the host. If specified, this must be a valid port number, $0 < x < 65536$ . If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	No	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	No	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-5808** io.k8s.api.core.v1.SecurityContext

Parameter	Mandatory	Type	Description
allowPrivilegeEscalation	No	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN

Parameter	Mandatory	Type	Description
capabilities	No	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	No	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.
procMount	No	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	No	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	No	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

Parameter	Mandatory	Type	Description
runAsUser	No	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	No	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	No	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.
windowsOptions	No	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5809** io.k8s.api.core.v1.Capabilities

Parameter	Mandatory	Type	Description
add	No	Array of strings	Added capabilities
drop	No	Array of strings	Removed capabilities

**Table 5-5810** io.k8s.api.core.v1.Probe

Parameter	Mandatory	Type	Description
exec	No	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	No	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	No	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	No	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	No	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	No	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.
tcpSocket	No	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	No	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-5811** io.k8s.api.core.v1.ExecAction

Parameter	Mandatory	Type	Description
command	No	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-5812** io.k8s.api.core.v1.HTTPGetAction

Parameter	Mandatory	Type	Description
host	No	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	No	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	No	String	Path to access on the HTTP server.
port	Yes	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	No	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-5813** io.k8s.api.core.v1.HTTPHeader

Parameter	Mandatory	Type	Description
name	Yes	String	The header field name

Parameter	Mandatory	Type	Description
value	Yes	String	The header field value

**Table 5-5814** io.k8s.api.core.v1.TCPSocketAction

Parameter	Mandatory	Type	Description
host	No	String	Optional: Host name to connect to, defaults to the pod IP.
port	Yes	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-5815** io.k8s.api.core.v1.VolumeDevice

Parameter	Mandatory	Type	Description
devicePath	Yes	String	devicePath is the path inside of the container that the device will be mapped to.
name	Yes	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-5816** io.k8s.api.core.v1.VolumeMount

Parameter	Mandatory	Type	Description
extendPathMode	No	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	Yes	String	Path within the container at which the volume should be mounted. Must not contain ':

Parameter	Mandatory	Type	Description
mountPropagation	No	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	Yes	String	This must match the Name of a Volume.
policy	No	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	No	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	No	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	No	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$ (VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-5817** io.k8s.api.core.v1.Policy

Parameter	Mandatory	Type	Description
logs	No	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-5818** io.k8s.api.core.v1.Logs

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations for log.
rotate	Yes	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-5819** io.k8s.api.core.v1.PodReadinessGate

Parameter	Mandatory	Type	Description
conditionType	Yes	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-5820** io.k8s.api.core.v1.PodSecurityContext

Parameter	Mandatory	Type	Description
fsGroup	No	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>



Parameter	Mandatory	Type	Description
fsGroupChangePolicy	No	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	No	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

Parameter	Mandatory	Type	Description
runAsUser	No	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seLinuxOptions	No	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	No	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	No	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	No	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	No	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5821** io.k8s.api.core.v1.SELinuxOptions

Parameter	Mandatory	Type	Description
level	No	String	Level is SELinux level label that applies to the container.
role	No	String	Role is a SELinux role label that applies to the container.
type	No	String	Type is a SELinux type label that applies to the container.
user	No	String	User is a SELinux user label that applies to the container.

**Table 5-5822** io.k8s.api.core.v1.SeccompProfile

Parameter	Mandatory	Type	Description
localhostProfile	No	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	Yes	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-5823** io.k8s.api.core.v1.Sysctl

Parameter	Mandatory	Type	Description
name	Yes	String	Name of a property to set
value	Yes	String	Value of a property to set

**Table 5-5824** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Mandatory	Type	Description
gmsaCredentialSpec	No	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	No	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	No	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5825** io.k8s.api.core.v1.Toleration

Parameter	Mandatory	Type	Description
effect	No	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	No	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.

Parameter	Mandatory	Type	Description
operator	No	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	No	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	No	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-5826** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Mandatory	Type	Description
labelSelector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Mandatory	Type	Description
maxSkew	Yes	Integer	<p>MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i>, it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3     P   P     - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1 (zone2) would make the ActualSkew(2-0) on zone1 (zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i>, it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.</p>
topologyKey	Yes	String	<p>TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each &lt;key, value&gt; as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.</p>

Parameter	Mandatory	Type	Description
whenUnsatisfiable	Yes	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3     P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-5827** io.k8s.api.core.v1.Volume

Parameter	Mandatory	Type	Description
awsElasticBlockStore	No	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

Parameter	Mandatory	Type	Description
azureDisk	No	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	No	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	No	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	No	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	No	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	No	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	No	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	No	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>



Parameter	Mandatory	Type	Description
ephemeral	No	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	No	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	<p>FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.</p>
flexVolume	No	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	<p>FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.</p>

Parameter	Mandatory	Type	Description
flocker	No	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	No	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
gitRepo	No	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	No	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	No	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	No	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>

Parameter	Mandatory	Type	Description
localDir	No	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	Yes	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	No	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	No	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine
portworxVolume	No	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	No	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	No	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime

Parameter	Mandatory	Type	Description
rbd	No	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	No	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	No	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	No	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	No	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-5828** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

Parameter	Mandatory	Type	Description
partition	No	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	No	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticsearch">https://kubernetes.io/docs/concepts/storage/volumes#awselasticsearch</a>
volumeID	Yes	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticsearch">https://kubernetes.io/docs/concepts/storage/volumes#awselasticsearch</a>

**Table 5-5829** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Mandatory	Type	Description
cachingMode	No	String	Host Caching mode: None, Read Only, Read Write.
diskName	Yes	String	The Name of the data disk in the blob storage
diskURI	Yes	String	The URI the data disk in the blob storage
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.

Parameter	Mandatory	Type	Description
kind	No	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-5830** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	Yes	String	the name of secret that contains Azure Storage Account Name and Key
shareName	Yes	String	Share Name

**Table 5-5831** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Mandatory	Type	Description
monitors	Yes	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	No	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	No	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a>	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	No	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-5832** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

Parameter	Mandatory	Type	Description
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	Yes	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-5833** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.



Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-5834** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Mandatory	Type	Description
driver	Yes	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	No	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	No	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Mandatory	Type	Description
volumeAttributes	No	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-5835** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	No	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-5836** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Mandatory	Type	Description
medium	No	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	No	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-5837** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Mandatory	Type	Description
volumeClaimTemplate	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-5838** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Mandatory	Type	Description
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	Yes	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-5839** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Mandatory	Type	Description
creationTimestamp	No	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	No	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>



Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-5840** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-5841** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-5842** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Mandatory	Type	Description
dataSource	No	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	No	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>

Parameter	Mandatory	Type	Description
volumeMode	No	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	No	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-5843** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Mandatory	Type	Description
apiGroup	No	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	Yes	String	Kind is the type of resource being referenced
name	Yes	String	Name is the name of resource being referenced

**Table 5-5844** io.k8s.api.core.v1.ResourceRequirements

Parameter	Mandatory	Type	Description
limits	No	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Mandatory	Type	Description
requests	No	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-5845** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	No	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-5846** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	key is the label key that the selector applies to.
operator	Yes	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.



Parameter	Mandatory	Type	Description
values	No	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-5847** io.k8s.api.core.v1.FCVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	No	Integer	Optional: FC target lun number
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	No	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	No	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-5848** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Mandatory	Type	Description
driver	Yes	String	Driver is the name of the driver to use for this volume.

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	No	Map<String,String>	Optional: Extra command options if any.
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-5849** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Mandatory	Type	Description
datasetName	No	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	No	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-5850** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	No	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	Yes	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-5851** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Mandatory	Type	Description
directory	No	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	Yes	String	Repository URL
revision	No	String	Commit hash for the specified revision.

**Table 5-5852** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Mandatory	Type	Description
endpoints	Yes	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	Yes	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	No	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-5853** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Mandatory	Type	Description
path	Yes	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
type	No	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-5854** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Mandatory	Type	Description
chapAuthDiscovery	No	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	No	Boolean	whether support iSCSI Session CHAP authentication
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	No	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br):[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) will be created for the connection.
iqn	Yes	String	Target iSCSI Qualified Name.

Parameter	Mandatory	Type	Description
iscsiInterface	No	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Yes	Integer	iSCSI Target Lun number.
portals	No	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	No	<a href="https://kubernetes.io/api-reference/v1/objects/LocalObjectReference">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	Yes	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-5855** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Mandatory	Type	Description
sizeLimit	No	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) (Note that [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) may be empty, from the "" case in [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= 0   1   ...   9 [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).   .[/topic/body/section/</p>

Parameter	Mandatory	Type	Description
			<p>table/tgroup/tbody/row/entry/p/br {""} (br) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= "+"   "-" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= "e" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   "E" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2^63-1</p>



Parameter	Mandatory	Type	Description
			<p>in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that will cause implementors to also use a fixed point implementation.</p>

**Table 5-5856** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Mandatory	Type	Description
path	Yes	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	No	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	Yes	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-5857** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Mandatory	Type	Description
claimName	Yes	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	No	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-5858** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	Yes	String	ID that identifies Photon Controller persistent disk

**Table 5-5859** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	FSType represents the filesystem type to mount Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	Yes	String	VolumeID uniquely identifies a Portworx volume

**Table 5-5860** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Yes	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-5861** io.k8s.api.core.v1.VolumeProjection

Parameter	Mandatory	Type	Description
configMap	No	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	No	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project
secret	No	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	No	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-5862** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '.' path or start with '..'.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-5863** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-5864** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Mandatory	Type	Description
fieldRef	No	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.

Parameter	Mandatory	Type	Description
mode	No	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	Yes	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	No	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-5865** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Mandatory	Type	Description
apiVersion	No	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	Yes	String	Path of the field to select in the specified API version.

**Table 5-5866** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Mandatory	Type	Description
containerName	No	String	Container name: required for volumes, optional for env vars

Parameter	Mandatory	Type	Description
divisor	No	String	Specifies the output format of the exposed resources, defaults to "1"
resource	Yes	String	Required: resource to select

**Table 5-5867** io.k8s.api.core.v1.SecretProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret or its key must be defined

**Table 5-5868** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Mandatory	Type	Description
audience	No	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	No	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	Yes	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-5869** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Mandatory	Type	Description
group	No	String	Group to map volume access to Default is no group
readOnly	No	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	Yes	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes



Parameter	Mandatory	Type	Description
tenant	No	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	No	String	User to map volume access to Defaults to serviceaccount user
volume	Yes	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-5870** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	Yes	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	No	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Yes	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
pool	No	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	No	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-5871** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	Yes	String	The host address of the ScaleIO API Gateway.
protectionDomain	No	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	Yes	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	No	Boolean	Flag to enable/disable SSL communication with Gateway, default false

Parameter	Mandatory	Type	Description
storageMode	No	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	No	String	The ScaleIO Storage Pool associated with the protection domain.
system	Yes	String	The name of the storage system as configured in ScaleIO.
volumeName	No	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-5872** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.

Parameter	Mandatory	Type	Description
items	No	Array of <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	No	Boolean	Specify whether the Secret or its keys must be defined
secretName	No	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-5873** io.k8s.api.core.v1.KeyToPath

Parameter	Mandatory	Type	Description
key	Yes	String	The key to project.
mode	No	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.

Parameter	Mandatory	Type	Description
path	Yes	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-5874** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	No	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.

Parameter	Mandatory	Type	Description
volumeNamespace	No	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-5875** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	No	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	No	String	Storage Policy Based Management (SPBM) profile name.
volumePath	Yes	String	Path that identifies vSphere volume vmdk

**Table 5-5876** io.k8s.api.batch.v1.JobStatus

Parameter	Mandatory	Type	Description
active	No	Integer	The number of actively running pods.

Parameter	Mandatory	Type	Description
completionTime	No	String	Represents time when the job was completed. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
conditions	No	Array of <a href="#">io.k8s.api.batch.v1.JobCondition</a> objects	The latest available observations of an object's current state. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
failed	No	Integer	The number of pods which reached phase Failed.
startTime	No	String	Represents time when the job was acknowledged by the job controller. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
succeeded	No	Integer	The number of pods which reached phase Succeeded.

**Table 5-5877** io.k8s.api.batch.v1.JobCondition

Parameter	Mandatory	Type	Description
lastProbeTime	No	String	Last time the condition was checked.
lastTransitionTime	No	String	Last time the condition transit from one status to another.
message	No	String	Human readable message indicating details about last transition.
reason	No	String	(brief) reason for the condition's last transition.
status	Yes	String	Status of the condition, one of True, False, Unknown.
type	Yes	String	Type of job condition, Complete or Failed.

## Response Parameters

Status code: 200

**Table 5-5878** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.batch.v1.JobSpec</a> object	Specification of the desired behavior of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.batch.v1.JobStatus</a> object	Current status of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-5879** io.k8s.api.batch.v1.JobSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Specifies the duration in seconds relative to the startTime that the job may be active before the system tries to terminate it; value must be positive integer



Parameter	Type	Description
backoffLimit	Integer	Specifies the number of retries before marking this job failed. Defaults to 6
completions	Integer	Specifies the desired number of successfully finished pods the job should be run with. Setting to nil means that the success of any pod signals the success of all pods, and allows parallelism to have any positive value. Setting to 1 means that parallelism is limited to 1 and the success of that pod signals the success of the job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
manualSelector	Boolean	manualSelector controls generation of pod labels and pod selectors. Leave <i>manualSelector</i> unset unless you are certain what you are doing. When false or unset, the system pick labels unique to this job and appends those labels to the pod template. When true, the user is responsible for picking unique labels and specifying the selector. Failure to pick a unique label may cause this and other jobs to not function correctly. However, You may see <i>manualSelector=true</i> in jobs that were created with the old <i>extensions/v1beta1</i> API. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector</a>
parallelism	Integer	Specifies the maximum desired number of pods the job should run at any given time. The actual number of pods running in steady state will be less than this number when $((.spec.completions - .status.successful) < .spec.parallelism)$ , i.e. when the work left to do is less than max parallelism. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over pods that should match the pod count. Normally, the system sets this field for you. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Describes the pod that will be created when executing a job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>

Parameter	Type	Description
ttlSecondsAfterFinished	Integer	ttlSecondsAfterFinished limits the lifetime of a Job that has finished execution (either Complete or Failed). If this field is set, ttlSecondsAfterFinished after the Job finishes, it is eligible to be automatically deleted. When the Job is being deleted, its lifecycle guarantees (e.g. finalizers) will be honored. If this field is unset, the Job won't be automatically deleted. If this field is set to zero, the Job becomes eligible to be deleted immediately after it finishes. This field is alpha-level and is only honored by servers that enable the TTLAfterFinished feature.

**Table 5-5880** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-5881** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.

Parameter	Type	Description
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.

Parameter	Type	Description
hostname	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/types/#io.k8s.api.core.v1.PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "[hostname/]svc.[hostname/]". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-5882** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-5883** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.



**Table 5-5884** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-5885** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-5886** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-5887** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-5888** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-5889** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-5890** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-5891** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-5892** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-5893** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-5894** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5895** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-5896** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>



**Table 5-5897** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5898** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-5899** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-5900** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-5901** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-5902** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-5903** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-5904** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-5905** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-5906** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-5907** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-5908** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.



Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5909** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-5910** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-5911** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-5912** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-5913** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-5914** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-5915** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-5916** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'. Must not contain '..'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-5917** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-5918** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-5919** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-5920** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-5921** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-5922** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-5923** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-5924** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.



**Table 5-5925** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-5926** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-5927** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-5928** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-5929** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-5930** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-5931** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>



**Table 5-5932** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-5933** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-5934** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-5935** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-5936** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-5937** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-5938** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-5939** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.



Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-5940** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-5941** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-5942** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-5943** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-5944** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-5945** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-5946** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-5947** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-5948** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-5949** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-5950** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-5951** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-5952** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-5953** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-5954** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br):[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).



**Table 5-5955** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) (Note that [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) may be empty, from the "" case in [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= 0   1   ...   9 [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   .[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   .[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= "+"   "-" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) [/topic/body/section/table/tgroup/</p>

Parameter	Type	Description
		<p>tbody/row/entry/p/br {""}) (br ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br ::= "e" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br   "E" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than <math>2^{63}-1</math> in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that will cause implementors to also use a fixed point implementation.</p>

**Table 5-5956** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-5957** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-5958** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-5959** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-5960** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-5961** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project

Parameter	Type	Description
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-5962** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-5963** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-5964** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-5965** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-5966** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-5967** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-5968** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-5969** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-5970** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>



Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-5971** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-5972** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-5973** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-5974** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-5975** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-5976** io.k8s.api.batch.v1.JobStatus

Parameter	Type	Description
active	Integer	The number of actively running pods.
completionTime	String	Represents time when the job was completed. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
conditions	Array of <a href="#">io.k8s.api.batch.v1.JobCondition</a> objects	The latest available observations of an object's current state. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
failed	Integer	The number of pods which reached phase Failed.
startTime	String	Represents time when the job was acknowledged by the job controller. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
succeeded	Integer	The number of pods which reached phase Succeeded.

**Table 5-5977** io.k8s.api.batch.v1.JobCondition

Parameter	Type	Description
lastProbeTime	String	Last time the condition was checked.

Parameter	Type	Description
lastTransition Time	String	Last time the condition transit from one status to another.
message	String	Human readable message indicating details about last transition.
reason	String	(brief) reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of job condition, Complete or Failed.

**Status code: 201**

**Table 5-5978** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.batch.v1.JobSpec</a> object	Specification of the desired behavior of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.batch.v1.JobStatus</a> object	Current status of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-5979** io.k8s.api.batch.v1.JobSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Specifies the duration in seconds relative to the startTime that the job may be active before the system tries to terminate it; value must be positive integer
backoffLimit	Integer	Specifies the number of retries before marking this job failed. Defaults to 6
completions	Integer	Specifies the desired number of successfully finished pods the job should be run with. Setting to nil means that the success of any pod signals the success of all pods, and allows parallelism to have any positive value. Setting to 1 means that parallelism is limited to 1 and the success of that pod signals the success of the job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
manualSelector	Boolean	manualSelector controls generation of pod labels and pod selectors. Leave <i>manualSelector</i> unset unless you are certain what you are doing. When false or unset, the system pick labels unique to this job and appends those labels to the pod template. When true, the user is responsible for picking unique labels and specifying the selector. Failure to pick a unique label may cause this and other jobs to not function correctly. However, You may see <i>manualSelector=true</i> in jobs that were created with the old <i>extensions/v1beta1</i> API. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector</a>
parallelism	Integer	Specifies the maximum desired number of pods the job should run at any given time. The actual number of pods running in steady state will be less than this number when $(.spec.completions - .status.successful) < .spec.parallelism$ , i.e. when the work left to do is less than max parallelism. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over pods that should match the pod count. Normally, the system sets this field for you. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>

Parameter	Type	Description
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Describes the pod that will be created when executing a job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
ttlSecondsAfterFinished	Integer	ttlSecondsAfterFinished limits the lifetime of a Job that has finished execution (either Complete or Failed). If this field is set, ttlSecondsAfterFinished after the Job finishes, it is eligible to be automatically deleted. When the Job is being deleted, its lifecycle guarantees (e.g. finalizers) will be honored. If this field is unset, the Job won't be automatically deleted. If this field is set to zero, the Job becomes eligible to be deleted immediately after it finishes. This field is alpha-level and is only honored by servers that enable the TTLAfterFinished feature.

**Table 5-5980** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-5981** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints

Parameter	Type	Description
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.



Parameter	Type	Description
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.

Parameter	Type	Description
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.

Parameter	Type	Description
readinessGate s	Array of <a href="#">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClass Name	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerNa me	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityConte xt	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccoun t	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccoun tName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>

Parameter	Type	Description
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "[topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).[topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).[topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).svc.[topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="https://kubernetes.io/api-references/api-groups/#io.k8s.api.core.v1.Toleration">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.

Parameter	Type	Description
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-5982** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-5983** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-5984** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-5985** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-5986** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-5987** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-5988** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-5989** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringSchedulingIgnoredDuringExecution anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.



**Table 5-5990** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-5991** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-5992** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-5993** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-5994** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5995** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-5996** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-5997** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.



Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-5998** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-5999** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-6000** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-6001** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-6002** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-6003** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-6004** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-6005** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-6006** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-6007** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-6008** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6009** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-6010** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-6011** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-6012** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.



**Table 5-6013** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-6014** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-6015** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-6016** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'. Must not contain '..'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-6017** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-6018** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-6019** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-6020** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6021** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-6022** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-6023** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-6024** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6025** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-6026** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-6027** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>



Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-6028** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-6029** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-6030** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-6031** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-6032** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-6033** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6034** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-6035** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-6036** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-6037** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).



Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-6038** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-6039** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-6040** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-6041** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-6042** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-6043** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.



Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-6044** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-6045** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-6046** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-6047** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-6048** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-6049** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-6050** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-6051** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-6052** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-6053** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-6054** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br):[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-6055** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) (Note that [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) may be empty, from the "" case in [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br).) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= 0   1   ...   9 [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   .[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   .[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   .[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= "+"   "-" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br)   .[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) [/topic/body/section/table/tgroup/</p>

Parameter	Type	Description
		<p>tbody/row/entry/p/br {""}) (br ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br ::= "e" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br   "E" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that will cause implementors to also use a fixed point implementation.</p>

**Table 5-6056** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-6057** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-6058** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-6059** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.



Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-6060** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-6061** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project

Parameter	Type	Description
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountProjection</a> object	information about the serviceAccountToken data to project

**Table 5-6062** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6063** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-6064** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-6065** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-6066** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-6067** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-6068** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-6069** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-6070** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-6071** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-6072** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-6073** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-6074** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.



**Table 5-6075** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-6076** io.k8s.api.batch.v1.JobStatus

Parameter	Type	Description
active	Integer	The number of actively running pods.
completionTime	String	Represents time when the job was completed. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
conditions	Array of <a href="#">io.k8s.api.batch.v1.JobCondition</a> objects	The latest available observations of an object's current state. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
failed	Integer	The number of pods which reached phase Failed.
startTime	String	Represents time when the job was acknowledged by the job controller. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
succeeded	Integer	The number of pods which reached phase Succeeded.

**Table 5-6077** io.k8s.api.batch.v1.JobCondition

Parameter	Type	Description
lastProbeTime	String	Last time the condition was checked.

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transit from one status to another.
message	String	Human readable message indicating details about last transition.
reason	String	(brief) reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of job condition, Complete or Failed.

**Status code: 202**

**Table 5-6078** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.batch.v1.JobSpec</a> object	Specification of the desired behavior of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.batch.v1.JobStatus</a> object	Current status of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6079** io.k8s.api.batch.v1.JobSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Specifies the duration in seconds relative to the startTime that the job may be active before the system tries to terminate it; value must be positive integer
backoffLimit	Integer	Specifies the number of retries before marking this job failed. Defaults to 6
completions	Integer	Specifies the desired number of successfully finished pods the job should be run with. Setting to nil means that the success of any pod signals the success of all pods, and allows parallelism to have any positive value. Setting to 1 means that parallelism is limited to 1 and the success of that pod signals the success of the job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
manualSelector	Boolean	manualSelector controls generation of pod labels and pod selectors. Leave <i>manualSelector</i> unset unless you are certain what you are doing. When false or unset, the system pick labels unique to this job and appends those labels to the pod template. When true, the user is responsible for picking unique labels and specifying the selector. Failure to pick a unique label may cause this and other jobs to not function correctly. However, You may see <i>manualSelector=true</i> in jobs that were created with the old <i>extensions/v1beta1</i> API. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector</a>
parallelism	Integer	Specifies the maximum desired number of pods the job should run at any given time. The actual number of pods running in steady state will be less than this number when $(.spec.completions - .status.successful) < .spec.parallelism$ , i.e. when the work left to do is less than max parallelism. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over pods that should match the pod count. Normally, the system sets this field for you. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>

Parameter	Type	Description
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Describes the pod that will be created when executing a job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
ttlSecondsAfterFinished	Integer	ttlSecondsAfterFinished limits the lifetime of a Job that has finished execution (either Complete or Failed). If this field is set, ttlSecondsAfterFinished after the Job finishes, it is eligible to be automatically deleted. When the Job is being deleted, its lifecycle guarantees (e.g. finalizers) will be honored. If this field is unset, the Job won't be automatically deleted. If this field is set to zero, the Job becomes eligible to be deleted immediately after it finishes. This field is alpha-level and is only honored by servers that enable the TTLAfterFinished feature.

**Table 5-6080** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6081** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints

Parameter	Type	Description
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.

Parameter	Type	Description
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.

Parameter	Type	Description
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.

Parameter	Type	Description
readinessGate s	Array of <a href="#">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClass Name	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerNa me	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityConte xt	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccoun t	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccoun tName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>



Parameter	Type	Description
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "[hostname/]podname[.subdomain].svc.cluster.local". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="https://kubernetes.io/docs/api-reference/v1.27/objects/Toleration">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.

Parameter	Type	Description
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-6082** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-6083** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-6084** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-6085** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-6086** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-6087** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-6088** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-6089** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-6090** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-6091** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-6092** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-6093** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-6094** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.



Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-6095** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-6096** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-6097** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-6098** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-6099** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-6100** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-6101** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-6102** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-6103** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-6104** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>



Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-6105** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-6106** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-6107** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-6108** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6109** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-6110** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-6111** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-6112** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-6113** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-6114** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-6115** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-6116** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-6117** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-6118** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-6119** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-6120** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>
fsGroupChangePolicy	String	<p>fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".</p>
runAsGroup	Long	<p>The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>
runAsNonRoot	Boolean	<p>Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.</p>
runAsUser	Long	<p>The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>



Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6121** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-6122** io.k8s.api.core.v1.SecompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-6123** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-6124** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6125** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-6126** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-6127** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine



**Table 5-6128** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-6129** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-6130** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-6131** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-6132** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-6133** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6134** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-6135** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-6136** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-6137** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-6138** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-6139** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>



Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-6140** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-6141** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-6142** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-6143** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-6144** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-6145** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-6146** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-6147** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-6148** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-6149** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-6150** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>



Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-6151** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-6152** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-6153** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-6154** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br):[/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}] (br) will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).



Parameter	Type	Description
		<p>tbody/row/entry/p/br {""}) (br ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br ::= "e" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br   "E" [/topic/body/section/table/tgroup/tbody/row/entry/p/br {""}) (br</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that will cause implementors to also use a fixed point implementation.</p>

**Table 5-6156** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-6157** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-6158** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-6159** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-6160** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-6161** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project

Parameter	Type	Description
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-6162** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6163** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-6164** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-6165** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-6166** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select



**Table 5-6167** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-6168** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-6169** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-6170** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-6171** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-6172** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-6173** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-6174** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-6175** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-6176** io.k8s.api.batch.v1.JobStatus

Parameter	Type	Description
active	Integer	The number of actively running pods.
completionTime	String	Represents time when the job was completed. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
conditions	Array of <a href="#">io.k8s.api.batch.v1.JobCondition</a> objects	The latest available observations of an object's current state. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
failed	Integer	The number of pods which reached phase Failed.
startTime	String	Represents time when the job was acknowledged by the job controller. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
succeeded	Integer	The number of pods which reached phase Succeeded.

**Table 5-6177** io.k8s.api.batch.v1.JobCondition

Parameter	Type	Description
lastProbeTime	String	Last time the condition was checked.

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transit from one status to another.
message	String	Human readable message indicating details about last transition.
reason	String	(brief) reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of job condition, Complete or Failed.

## Example Requests

- Creating a job with  $\pi$  calculated to 2,000 bits, and printing the output

```
{
  "apiVersion": "batch/v1",
  "kind": "Job",
  "metadata": {
    "name": "pi"
  },
  "spec": {
    "template": {
      "metadata": {
        "name": "pi"
      },
      "spec": {
        "containers": [ {
          "command": [ "perl", "-Mbignum=bpi", "-wle", "print bpi(2000)" ],
          "image": "perl",
          "name": "pi",
          "resources": {
            "limits": {
              "cpu": "500m",
              "memory": "1024Mi"
            },
            "requests": {
              "cpu": "500m",
              "memory": "1024Mi"
            }
          }
        }
      ],
      "imagePullSecrets": [ {
        "name": "imagepull-secret"
      } ],
      "priority": 0,
      "restartPolicy": "Never"
    }
  }
}
```

- Creating a job that uses GPUs of the gpu-418.126 version

```
{
  "apiVersion": "batch/v1",
  "kind": "Job",
  "metadata": {
    "annotations": {
      "cri.cci.io/gpu-driver": "gpu-418.126",
      "description": ""
    }
  },
}
```

```

"labels": { },
"name": "gpu-job-test",
"namespace": "cci-namespace-44173581"
},
"spec": {
  "template": {
    "metadata": {
      "annotations": {
        "cri.cci.io/gpu-driver": "gpu-418.126"
      },
      "name": "gpu-job-test"
    },
    "spec": {
      "containers": [ {
        "command": [ "sleep", "3600" ],
        "image": "library/nginx:latest",
        "lifecycle": { },
        "name": "container-0",
        "resources": {
          "limits": {
            "cpu": 4,
            "memory": "32Gi",
            "nvidia.com/gpu-tesla-v100-16GB": 1
          },
          "requests": {
            "cpu": 4,
            "memory": "32Gi",
            "nvidia.com/gpu-tesla-v100-16GB": 1
          }
        }
      }
    ],
    "imagePullSecrets": [ {
      "name": "imagepull-secret"
    } ],
    "restartPolicy": "Never"
  }
}
}
}
}

```

## Example Responses

**Status code: 200**

OK

```

{
  "apiVersion": "batch/v1",
  "kind": "Job",
  "metadata": {
    "creationTimestamp": "2018-09-05T01:10:59Z",
    "labels": {
      "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4",
      "job-name": "pi"
    },
    "name": "pi",
    "namespace": "namespace-test",
    "resourceVersion": "5391201",
    "selfLink": "/apis/batch/v1/namespaces/namespace-test/jobs/pi",
    "uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4"
  },
  "spec": {
    "backoffLimit": 6,
    "completions": 1,
    "parallelism": 1,
    "selector": {
      "matchLabels": {
        "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4"
      }
    }
  }
}

```



```

},
"template": {
  "metadata": {
    "annotations": {
      "cri.cci.io/container-type": "secure-container"
    },
    "creationTimestamp": null,
    "labels": {
      "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4",
      "job-name": "pi"
    },
    "name": "pi"
  },
  "spec": {
    "containers": [ {
      "command": [ "perl", "-Mbignum=bpi", "-wle", "print bpi(2000)" ],
      "image": "perl",
      "imagePullPolicy": "Always",
      "name": "pi",
      "resources": {
        "limits": {
          "cpu": "500m",
          "memory": "1Gi"
        },
        "requests": {
          "cpu": "500m",
          "memory": "1Gi"
        }
      },
      "terminationMessagePath": "/dev/termination-log",
      "terminationMessagePolicy": "File"
    } ],
    "dnsPolicy": "ClusterFirst",
    "imagePullSecrets": [ {
      "name": "imagepull-secret"
    } ],
    "priority": 0,
    "restartPolicy": "Never",
    "schedulerName": "default-scheduler",
    "securityContext": { }
  }
}
},
"status": { }
}

```

## Status Codes

Status Code	Description
200	OK
201	Created
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed

Status Code	Description
406	NotAcceptable
409	AlreadyExists
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.20.5 Deleting a Job

### Function

This API is used to delete a specified job.

### Calling Method

For details, see [Calling APIs](#).

### URI

DELETE /apis/batch/v1/namespaces/{namespace}/jobs/{name}

**Table 5-6178** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Job
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-6179** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.

Parameter	Mandatory	Type	Description
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-6180** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-6181** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
dryRun	No	Array of strings	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
gracePeriodSeconds	No	Long	The duration in seconds before the object should be deleted. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>

Parameter	Mandatory	Type	Description
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
preconditions	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions</a> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.

**Table 5-6182** io.k8s.apimachinery.pkg.apis.meta.v1.Preconditions

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specifies the target ResourceVersion
uid	No	String	Specifies the target UID.

## Response Parameters

**Status code: 200**

**Table 5-6183** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6184** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-6185** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional.  Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"



Parameter	Type	Description
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-6186** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Status code: 202

Table 5-6187 Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
message	String	A human-readable description of the status of this operation.

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure". More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6188** io.k8s.apimachinery.pkg.apis.meta.v1.StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action <ul style="list-style-type: none"> <li>for those errors this field may indicate how long to wait before taking the alternate action.</li> </ul>

Parameter	Type	Description
uid	String	UID of the resource. (when there is a single resource which can be described). More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-6189** io.k8s.apimachinery.pkg.apis.meta.v1.StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 5-6190** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.

Parameter	Type	Description
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

- Deleting only the job (The pods are not deleted.)

```
{
  "apiVersion": "v1",
  "gracePeriodSeconds": 0,
  "kind": "DeleteOptions",
  "propagationPolicy": "Orphan"
}
```

- Deleting the pods and then the job

```
{
  "apiVersion": "v1",
  "kind": "DeleteOptions",
  "propagationPolicy": "Foreground"
}
```

- Deleting the job and then the pods

```
{
  "apiVersion": "v1",
```



```

"restartPolicy": "Never",
"schedulerName": "default-scheduler",
"securityContext": { }
}
},
"status": {
  "active": 1,
  "startTime": "2018-09-05T01:10:59Z"
}
}

```

## Status Codes

Status Code	Description
200	OK
202	Accepted
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.20.6 Querying a Job

### Function

This API is used to query the details about a specified job.

## Calling Method

For details, see [Calling APIs](#).

## URI

GET /apis/batch/v1/namespaces/{namespace}/jobs/{name}

**Table 5-6191** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Job
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-6192** Query Parameters

Parameter	Mandatory	Type	Description
exact	No	Boolean	Should the export be exact. Exact export maintains cluster-specific fields like 'Namespace'. Deprecated. Planned for removal in 1.18.
export	No	Boolean	Should this value be exported. Export strips fields that a user can not specify. Deprecated. Planned for removal in 1.18.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-6193** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.



## Response Parameters

Status code: 200

**Table 5-6194** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.batch.v1.JobSpec</a> object	Specification of the desired behavior of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.batch.v1.JobStatus</a> object	Current status of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6195** io.k8s.api.batch.v1.JobSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Specifies the duration in seconds relative to the startTime that the job may be active before the system tries to terminate it; value must be positive integer
backoffLimit	Integer	Specifies the number of retries before marking this job failed. Defaults to 6

Parameter	Type	Description
completions	Integer	Specifies the desired number of successfully finished pods the job should be run with. Setting to nil means that the success of any pod signals the success of all pods, and allows parallelism to have any positive value. Setting to 1 means that parallelism is limited to 1 and the success of that pod signals the success of the job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
manualSelector	Boolean	manualSelector controls generation of pod labels and pod selectors. Leave <i>manualSelector</i> unset unless you are certain what you are doing. When false or unset, the system pick labels unique to this job and appends those labels to the pod template. When true, the user is responsible for picking unique labels and specifying the selector. Failure to pick a unique label may cause this and other jobs to not function correctly. However, You may see <i>manualSelector=true</i> in jobs that were created with the old <i>extensions/v1beta1</i> API. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector</a>
parallelism	Integer	Specifies the maximum desired number of pods the job should run at any given time. The actual number of pods running in steady state will be less than this number when $(.spec.completions - .status.successful) < .spec.parallelism$ , i.e. when the work left to do is less than max parallelism. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over pods that should match the pod count. Normally, the system sets this field for you. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Describes the pod that will be created when executing a job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>

Parameter	Type	Description
ttlSecondsAfterFinished	Integer	ttlSecondsAfterFinished limits the lifetime of a Job that has finished execution (either Complete or Failed). If this field is set, ttlSecondsAfterFinished after the Job finishes, it is eligible to be automatically deleted. When the Job is being deleted, its lifecycle guarantees (e.g. finalizers) will be honored. If this field is unset, the Job won't be automatically deleted. If this field is set to zero, the Job becomes eligible to be deleted immediately after it finishes. This field is alpha-level and is only honored by servers that enable the TTLAfterFinished feature.

**Table 5-6196** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6197** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.

Parameter	Type	Description
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.

Parameter	Type	Description
hostname	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/objects/PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-6198** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.



Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-6199** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringSchedulingIgnoredDuringExecution affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-6200** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.

Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-6201** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-6202** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-6203** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-6204** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-6205** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-6206** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-6207** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-6208** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-6209** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-6210** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.



Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-6211** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-6212** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-6213** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-6214** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-6215** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-6216** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-6217** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-6218** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-6219** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-6220** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-6221** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-6222** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.



Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-6223** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-6224** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6225** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-6226** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-6227** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-6228** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-6229** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-6230** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-6231** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-6232** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'. Must not contain '..'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-6233** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-6234** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-6235** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-6236** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6237** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.



**Table 5-6238** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-6239** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-6240** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6241** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-6242** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-6243** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-6244** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-6245** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared



Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-6246** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-6247** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-6248** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-6249** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6250** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-6251** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-6252** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-6253** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-6254** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-6255** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.
generateName	String	GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.  If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).  Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a>
generation	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.



Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-6256** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-6257** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-6258** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-6259** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-6260** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-6261** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-6262** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-6263** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-6264** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-6265** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-6266** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-6267** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-6268** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-6269** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>



Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-6270** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-6271** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-6272** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-6273** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-6274** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-6275** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-6276** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-6277** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-6278** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6279** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-6280** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-6281** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-6282** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-6283** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-6284** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-6285** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-6286** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>



Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-6287** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-6288** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-6289** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-6290** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-6291** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-6292** io.k8s.api.batch.v1.JobStatus

Parameter	Type	Description
active	Integer	The number of actively running pods.
completionTime	String	Represents time when the job was completed. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
conditions	Array of <a href="#">io.k8s.api.batch.v1.JobCondition</a> objects	The latest available observations of an object's current state. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
failed	Integer	The number of pods which reached phase Failed.
startTime	String	Represents time when the job was acknowledged by the job controller. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
succeeded	Integer	The number of pods which reached phase Succeeded.

**Table 5-6293** io.k8s.api.batch.v1.JobCondition

Parameter	Type	Description
lastProbeTime	String	Last time the condition was checked.

Parameter	Type	Description
lastTransition Time	String	Last time the condition transit from one status to another.
message	String	Human readable message indicating details about last transition.
reason	String	(brief) reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of job condition, Complete or Failed.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "batch/v1",
  "kind": "Job",
  "metadata": {
    "creationTimestamp": "2018-09-05T01:10:59Z",
    "labels": {
      "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4",
      "job-name": "pi"
    },
    "name": "pi",
    "namespace": "namespace-test",
    "resourceVersion": "5391205",
    "selfLink": "/apis/batch/v1/namespaces/namespace-test/jobs/pi",
    "uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4"
  },
  "spec": {
    "backoffLimit": 6,
    "completions": 1,
    "parallelism": 1,
    "selector": {
      "matchLabels": {
        "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4"
      }
    },
    "template": {
      "metadata": {
        "annotations": {
          "cri.cci.io/container-type": "secure-container"
        },
        "creationTimestamp": null,
        "labels": {
          "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4",
          "job-name": "pi"
        },
        "name": "pi"
      },
      "spec": {
```

```

"containers": [ {
  "command": [ "perl", "-Mbignum=bpi", "-wle", "print bpi(2000)" ],
  "image": "perl",
  "imagePullPolicy": "Always",
  "name": "pi",
  "resources": {
    "limits": {
      "cpu": "500m",
      "memory": "1Gi"
    },
    "requests": {
      "cpu": "500m",
      "memory": "1Gi"
    }
  },
  "terminationMessagePath": "/dev/termination-log",
  "terminationMessagePolicy": "File"
} ],
"dnsPolicy": "ClusterFirst",
"imagePullSecrets": [ {
  "name": "imagepull-secret"
} ],
"restartPolicy": "Never",
"schedulerName": "default-scheduler",
"securityContext": { }
}
},
"status": {
  "active": 1,
  "startTime": "2018-09-05T01:10:59Z"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable

Status Code	Description
504	ServerTimeout

## 5.20.7 Updating a Job

### Function

This API is used to update a specified job.

The following fields can be updated:

- **metadata.labels**
- **spec.parallelism**
- **spec.completions**
- **spec.selector**

### Calling Method

For details, see [Calling APIs](#).

### URI

PATCH /apis/batch/v1/namespaces/{namespace}/jobs/{name}

**Table 5-6294** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Job
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-6295** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed

Parameter	Mandatory	Type	Description
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> . This field is required for apply requests (application/apply-patch) but optional for non-apply patch types (JsonPatch, MergePatch, StrategicMergePatch).
force	No	Boolean	Force is going to "force" Apply requests. It means user will re-acquire conflicting fields owned by other people. Force flag must be unset for non-apply patch requests.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-6296** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.



Parameter	Mandatory	Type	Description
Content-Type	Yes	String	<p>Currently, three types of patch request methods are supported. For details, see "Update API Objects in Place Using kubectl patch" (<a href="https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/">https://kubernetes.io/docs/tasks/manage-kubernetes-objects/update-api-object-kubectl-patch/</a>).</p> <ul style="list-style-type: none"> <li>• <b>Json Patch, Content-Type: application/json-patch+json</b> As defined in RFC6902, Json Patch contains a series of operations on a JSON object. After receiving the object, the server applies the represented operations to the JSON object.</li> <li>• <b>Merge Patch, Content-Type: application/merge-patch+json</b> According to RFC 7386, Merge Patch contains some description of a JSON object. The JSON object is submitted to the server end and merges with the current object of the server end, which means to replace the list field of the current resource object to form a new object.</li> <li>• <b>Strategic Merge Patch, Content-Type: application/strategic-merge-patch+json</b> Strategic Merge Patch is used to add legal metadata to API objects and uses new metadata to determine which lists should be merged and which ones should not. The current metadata is used as the structure labels.</li> </ul>

**Table 5-6297** Request body parameters

Parameter	Mandatory	Type	Description
-	Yes	Object	Patch is provided to give a concrete name and type to the Kubernetes PATCH request body.

## Response Parameters

Status code: 200

**Table 5-6298** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.batch.v1.JobSpec</a> object	Specification of the desired behavior of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.batch.v1.JobStatus</a> object	Current status of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6299** io.k8s.api.batch.v1.JobSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Specifies the duration in seconds relative to the startTime that the job may be active before the system tries to terminate it; value must be positive integer
backoffLimit	Integer	Specifies the number of retries before marking this job failed. Defaults to 6
completions	Integer	Specifies the desired number of successfully finished pods the job should be run with. Setting to nil means that the success of any pod signals the success of all pods, and allows parallelism to have any positive value. Setting to 1 means that parallelism is limited to 1 and the success of that pod signals the success of the job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
manualSelector	Boolean	manualSelector controls generation of pod labels and pod selectors. Leave <i>manualSelector</i> unset unless you are certain what you are doing. When false or unset, the system pick labels unique to this job and appends those labels to the pod template. When true, the user is responsible for picking unique labels and specifying the selector. Failure to pick a unique label may cause this and other jobs to not function correctly. However, You may see <i>manualSelector=true</i> in jobs that were created with the old <i>extensions/v1beta1</i> API. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector</a>
parallelism	Integer	Specifies the maximum desired number of pods the job should run at any given time. The actual number of pods running in steady state will be less than this number when $((\text{.spec.completions} - \text{.status.successful}) < \text{.spec.parallelism})$ , i.e. when the work left to do is less than max parallelism. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over pods that should match the pod count. Normally, the system sets this field for you. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>

Parameter	Type	Description
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Describes the pod that will be created when executing a job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
ttlSecondsAfterFinished	Integer	ttlSecondsAfterFinished limits the lifetime of a Job that has finished execution (either Complete or Failed). If this field is set, ttlSecondsAfterFinished after the Job finishes, it is eligible to be automatically deleted. When the Job is being deleted, its lifecycle guarantees (e.g. finalizers) will be honored. If this field is unset, the Job won't be automatically deleted. If this field is set to zero, the Job becomes eligible to be deleted immediately after it finishes. This field is alpha-level and is only honored by servers that enable the TTLAfterFinished feature.

**Table 5-6300** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6301** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints

Parameter	Type	Description
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.

Parameter	Type	Description
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.

Parameter	Type	Description
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.

Parameter	Type	Description
readinessGate s	Array of <a href="#">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClass Name	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerNa me	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityConte xt	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccoun t	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccoun tName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>



Parameter	Type	Description
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.

Parameter	Type	Description
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-6302** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-6303** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-6304** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-6305** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-6306** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-6307** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-6308** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-6309** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-6310** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-6311** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-6312** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-6313** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-6314** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.



Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-6315** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-6316** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-6317** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-6318** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-6319** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-6320** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-6321** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-6322** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-6323** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-6324** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>



Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-6325** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-6326** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-6327** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-6328** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6329** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-6330** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-6331** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-6332** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-6333** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-6334** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-6335** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-6336** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'. Must not contain '..'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-6337** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-6338** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-6339** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-6340** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>
fsGroupChangePolicy	String	<p>fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".</p>
runAsGroup	Long	<p>The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>
runAsNonRoot	Boolean	<p>Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.</p>
runAsUser	Long	<p>The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>



Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6341** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-6342** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-6343** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-6344** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6345** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-6346** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-6347** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine



**Table 5-6348** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-6349** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-6350** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-6351** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-6352** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-6353** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6354** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-6355** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-6356** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-6357** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-6358** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-6359** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>



Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-6360** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-6361** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-6362** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-6363** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-6364** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-6365** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-6366** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-6367** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-6368** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-6369** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-6370** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>



Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-6371** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-6372** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-6373** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-6374** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-6375** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-6376** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-6377** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-6378** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-6379** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-6380** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-6381** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-6382** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6383** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-6384** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-6385** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-6386** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-6387** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-6388** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.



**Table 5-6389** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-6390** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-6391** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-6392** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-6393** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-6394** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-6395** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-6396** io.k8s.api.batch.v1.JobStatus

Parameter	Type	Description
active	Integer	The number of actively running pods.
completionTime	String	Represents time when the job was completed. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
conditions	Array of <a href="#">io.k8s.api.batch.v1.JobCondition</a> objects	The latest available observations of an object's current state. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
failed	Integer	The number of pods which reached phase Failed.
startTime	String	Represents time when the job was acknowledged by the job controller. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
succeeded	Integer	The number of pods which reached phase Succeeded.

**Table 5-6397** io.k8s.api.batch.v1.JobCondition

Parameter	Type	Description
lastProbeTime	String	Last time the condition was checked.

Parameter	Type	Description
lastTransition Time	String	Last time the condition transit from one status to another.
message	String	Human readable message indicating details about last transition.
reason	String	(brief) reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of job condition, Complete or Failed.

## Example Requests

Changing the **labels** value of an existing job to **app:test**

```
{
  "metadata": {
    "labels": {
      "app": "test"
    }
  }
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "batch/v1",
  "kind": "Job",
  "metadata": {
    "creationTimestamp": "2018-09-05T01:10:59Z",
    "labels": {
      "app": "test",
      "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4",
      "job-name": "pi"
    },
    "name": "pi",
    "namespace": "namespace-test",
    "resourceVersion": "5398083",
    "selfLink": "/apis/batch/v1/namespaces/namespace-test/jobs/pi",
    "uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4"
  },
  "spec": {
    "backoffLimit": 6,
    "completions": 1,
    "parallelism": 1,
    "selector": {
      "matchLabels": {
        "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4"
      }
    }
  },
  "template": {
    "metadata": {
      "annotations": {
        "cri.cci.io/container-type": "secure-container"
      }
    }
  }
}
```

```

    },
    "creationTimestamp" : null,
    "labels" : {
      "controller-uid" : "8c923079-b0a8-11e8-8bcb-f898ef6c78b4",
      "job-name" : "pi"
    },
    "name" : "pi"
  },
  "spec" : {
    "containers" : [ {
      "command" : [ "perl", "-Mbignum=bpi", "-wle", "print bpi(2000)" ],
      "image" : "perl",
      "imagePullPolicy" : "Always",
      "name" : "pi",
      "resources" : {
        "limits" : {
          "cpu" : "500m",
          "memory" : "1Gi"
        },
        "requests" : {
          "cpu" : "500m",
          "memory" : "1Gi"
        }
      },
      "terminationMessagePath" : "/dev/termination-log",
      "terminationMessagePolicy" : "File"
    } ],
    "dnsPolicy" : "ClusterFirst",
    "imagePullSecrets" : [ {
      "name" : "imagepull-secret"
    } ],
    "restartPolicy" : "Never",
    "schedulerName" : "default-scheduler",
    "securityContext" : { }
  }
}
},
"status" : {
  "active" : 1,
  "startTime" : "2018-09-05T01:10:59Z"
}
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType

Status Code	Description
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.20.8 Replacing a Job

### Function

This API is used to replace a specified job.

The following fields can be updated:

- **metadata.selfLink**
- **metadata.resourceVersion**
- **metadata.generation**
- **metadata.creationTimestamp**
- **metadata.deletionTimestamp**
- **metadata.labels**
- **metadata.clusterName**
- **metadata.generateName**
- **metadata.annotations**
- **spec.replicas**
- **template.containers**
- **spec.restartPolicy**
- **spec.activeDeadlineSeconds**

### Calling Method

For details, see [Calling APIs](#).

### URI

PUT /apis/batch/v1/namespaces/{namespace}/jobs/{name}

**Table 5-6398** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Job



Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-6399** Query Parameters

Parameter	Mandatory	Type	Description
dryRun	No	String	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed
fieldManager	No	String	fieldManager is a name associated with the actor or entity that is making these changes. The value must be less than or 128 characters long, and only contain printable characters, as defined by <a href="https://golang.org/pkg/unicode/#IsPrint">https://golang.org/pkg/unicode/#IsPrint</a> .
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-6400** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The default value is <b>application/json</b> . Default: <b>application/json</b>

**Table 5-6401** Request body parameters

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	No	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.batch.v1.JobSpec</a> object	Specification of the desired behavior of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

Parameter	Mandatory	Type	Description
status	No	<a href="#">io.k8s.api.batch.v1.JobStatus</a> object	Current status of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6402** io.k8s.api.batch.v1.JobSpec

Parameter	Mandatory	Type	Description
activeDeadlineSeconds	No	Long	Specifies the duration in seconds relative to the startTime that the job may be active before the system tries to terminate it; value must be positive integer
backoffLimit	No	Integer	Specifies the number of retries before marking this job failed. Defaults to 6
completions	No	Integer	Specifies the desired number of successfully finished pods the job should be run with. Setting to nil means that the success of any pod signals the success of all pods, and allows parallelism to have any positive value. Setting to 1 means that parallelism is limited to 1 and the success of that pod signals the success of the job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/job-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/job-run-to-completion/</a>

Parameter	Mandatory	Type	Description
manualSelector	No	Boolean	manualSelector controls generation of pod labels and pod selectors. Leave <i>manualSelector</i> unset unless you are certain what you are doing. When false or unset, the system pick labels unique to this job and appends those labels to the pod template. When true, the user is responsible for picking unique labels and specifying the selector. Failure to pick a unique label may cause this and other jobs to not function correctly. However, You may see <i>manualSelector=true</i> in jobs that were created with the old <i>extensions/v1beta1</i> API. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector</a>
parallelism	No	Integer	Specifies the maximum desired number of pods the job should run at any given time. The actual number of pods running in steady state will be less than this number when ((.spec.completions - .status.successful) < .spec.parallelism), i.e. when the work left to do is less than max parallelism. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
selector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over pods that should match the pod count. Normally, the system sets this field for you. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>

Parameter	Mandatory	Type	Description
template	Yes	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Describes the pod that will be created when executing a job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/job-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/job-run-to-completion/</a>
tTlSecondsAfterFinished	No	Integer	tTlSecondsAfterFinished limits the lifetime of a Job that has finished execution (either Complete or Failed). If this field is set, tTlSecondsAfterFinished after the Job finishes, it is eligible to be automatically deleted. When the Job is being deleted, its lifecycle guarantees (e.g. finalizers) will be honored. If this field is unset, the Job won't be automatically deleted. If this field is set to zero, the Job becomes eligible to be deleted immediately after it finishes. This field is alpha-level and is only honored by servers that enable the TTLAfterFinished feature.

**Table 5-6403** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Mandatory	Type	Description
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	No	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6404** io.k8s.api.core.v1.PodSpec

Parameter	Mandatory	Type	Description
activeDeadlineSeconds	No	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	No	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	No	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Yes	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	No	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	No	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	No	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.

Parameter	Mandatory	Type	Description
ephemeralContainers	No	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	No	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	No	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	No	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	No	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	No	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.

Parameter	Mandatory	Type	Description
imagePullSecrets	No	Array of <a href="https://kubernetes.io/docs/reference/generated/kubernetes-api/v1.18/#localobjectreference-v1-io.k8s.api.core.v1">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	No	Array of <a href="https://kubernetes.io/docs/reference/generated/kubernetes-api/v1.18/#container-v1-io.k8s.api.core.v1">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>



Parameter	Mandatory	Type	Description
nodeName	No	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	No	Map<String,String>	nodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	No	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.

Parameter	Mandatory	Type	Description
preemptionPolicy	No	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	No	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	No	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	No	Array of <a href="https://kubernetes.io/api-reference/v1.27/apis/core/v1/#pod-readiness-gate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Mandatory	Type	Description
restartPolicy	No	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	No	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	No	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	No	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceName	No	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceName instead.

Parameter	Mandatory	Type	Description
serviceAccountName	No	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	No	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	No	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	No	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.

Parameter	Mandatory	Type	Description
terminationGracePeriodSeconds	No	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	No	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	No	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	No	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-6405** io.k8s.api.core.v1.Affinity

Parameter	Mandatory	Type	Description
nodeAffinity	No	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.

Parameter	Mandatory	Type	Description
podAffinity	No	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	No	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-6406** io.k8s.api.core.v1.NodeAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Mandatory	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	No	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-6407** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Mandatory	Type	Description
preference	Yes	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Yes	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-6408** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	No	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-6409** io.k8s.api.core.v1.NodeSelector

Parameter	Mandatory	Type	Description
nodeSelectorTerms	Yes	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-6410** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	The label key that the selector applies to.
operator	Yes	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist, Gt, and Lt.
values	No	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.



**Table 5-6411** io.k8s.api.core.v1.PodAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-6412** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	No	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-6413** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Mandatory	Type	Description
podAffinityTerm	Yes	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Yes	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-6414** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Mandatory	Type	Description
labelSelector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	No	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	Yes	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-6415** io.k8s.api.core.v1.PodDNSConfig

Parameter	Mandatory	Type	Description
nameservers	No	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	No	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	No	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-6416** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Mandatory	Type	Description
name	No	String	Required.
value	No	String	value is the value of the option

**Table 5-6417** io.k8s.api.core.v1.EphemeralContainer

Parameter	Mandatory	Type	Description
args	No	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	No	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	No	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.

Parameter	Mandatory	Type	Description
envFrom	No	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	No	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	No	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	No	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	Yes	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	No	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.

Parameter	Mandatory	Type	Description
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	No	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	No	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	No	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false

Parameter	Mandatory	Type	Description
targetContainerName	No	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	No	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	No	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	No	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.



Parameter	Mandatory	Type	Description
volumeDevices	No	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	No	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	No	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-6418** io.k8s.api.core.v1.HostAlias

Parameter	Mandatory	Type	Description
hostnames	No	Array of strings	Hostnames for the above IP address.
ip	No	String	IP address of the host file entry.

**Table 5-6419** io.k8s.api.core.v1.LocalObjectReference

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-6420** io.k8s.api.core.v1.Container

Parameter	Mandatory	Type	Description
args	No	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	No	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	No	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.

Parameter	Mandatory	Type	Description
envFrom	No	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	No	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	No	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	No	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	No	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	No	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
securityContext	No	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>

Parameter	Mandatory	Type	Description
startupProbe	No	<a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	No	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	No	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false

Parameter	Mandatory	Type	Description
terminationMessagePath	No	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	No	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	No	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	No	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	No	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.

Parameter	Mandatory	Type	Description
workingDir	No	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-6421** io.k8s.api.core.v1.EnvVar

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	No	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".
valueFrom	No	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-6422** io.k8s.api.core.v1.EnvVarSource

Parameter	Mandatory	Type	Description
configMapKeyRef	No	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.

Parameter	Mandatory	Type	Description
fieldRef	No	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports metadata.name, metadata.namespace, <i>metadata.labels['&lt;KEY&gt;']</i> , <i>metadata.annotations['&lt;KEY&gt;']</i> , spec.nodeName, spec.serviceAccountName, status.hostIP, status.podIP, status.podIPs.
resourceFieldRef	No	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	No	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-6423** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Mandatory	Type	Description
key	Yes	String	The key to select.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-6424** io.k8s.api.core.v1.SecretKeySelector

Parameter	Mandatory	Type	Description
key	Yes	String	The key of the secret to select from. Must be a valid secret key.



Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret or its key must be defined

**Table 5-6425** io.k8s.api.core.v1.EnvFromSource

Parameter	Mandatory	Type	Description
configMapRef	No	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	No	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	No	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-6426** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap must be defined

**Table 5-6427** io.k8s.api.core.v1.SecretEnvSource

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret must be defined

**Table 5-6428** io.k8s.api.core.v1.Lifecycle

Parameter	Mandatory	Type	Description
postStart	No	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

Parameter	Mandatory	Type	Description
preStop	No	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-6429** io.k8s.api.core.v1.Handler

Parameter	Mandatory	Type	Description
exec	No	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	No	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
tcpSocket	No	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-6430** io.k8s.api.core.v1.ContainerPort

Parameter	Mandatory	Type	Description
containerPort	Yes	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	No	String	What host IP to bind the external port to.
hostPort	No	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	No	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	No	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-6431** io.k8s.api.core.v1.SecurityContext

Parameter	Mandatory	Type	Description
allowPrivilegeEscalation	No	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN

Parameter	Mandatory	Type	Description
capabilities	No	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	No	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.
procMount	No	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	No	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	No	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

Parameter	Mandatory	Type	Description
runAsUser	No	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	No	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	No	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.
windowsOptions	No	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6432** io.k8s.api.core.v1.Capabilities

Parameter	Mandatory	Type	Description
add	No	Array of strings	Added capabilities
drop	No	Array of strings	Removed capabilities

**Table 5-6433** io.k8s.api.core.v1.Probe

Parameter	Mandatory	Type	Description
exec	No	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	No	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	No	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	No	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	No	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	No	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.
tcpSocket	No	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	No	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-6434** io.k8s.api.core.v1.ExecAction

Parameter	Mandatory	Type	Description
command	No	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-6435** io.k8s.api.core.v1.HTTPGetAction

Parameter	Mandatory	Type	Description
host	No	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	No	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	No	String	Path to access on the HTTP server.
port	Yes	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	No	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-6436** io.k8s.api.core.v1.HTTPHeader

Parameter	Mandatory	Type	Description
name	Yes	String	The header field name



Parameter	Mandatory	Type	Description
value	Yes	String	The header field value

**Table 5-6437** io.k8s.api.core.v1.TCPSocketAction

Parameter	Mandatory	Type	Description
host	No	String	Optional: Host name to connect to, defaults to the pod IP.
port	Yes	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-6438** io.k8s.api.core.v1.VolumeDevice

Parameter	Mandatory	Type	Description
devicePath	Yes	String	devicePath is the path inside of the container that the device will be mapped to.
name	Yes	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-6439** io.k8s.api.core.v1.VolumeMount

Parameter	Mandatory	Type	Description
extendPathMode	No	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	Yes	String	Path within the container at which the volume should be mounted. Must not contain ':'.

Parameter	Mandatory	Type	Description
mountPropagation	No	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	Yes	String	This must match the Name of a Volume.
policy	No	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	No	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	No	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	No	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$ (VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-6440** io.k8s.api.core.v1.Policy

Parameter	Mandatory	Type	Description
logs	No	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-6441** io.k8s.api.core.v1.Logs

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations for log.
rotate	Yes	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-6442** io.k8s.api.core.v1.PodReadinessGate

Parameter	Mandatory	Type	Description
conditionType	Yes	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-6443** io.k8s.api.core.v1.PodSecurityContext

Parameter	Mandatory	Type	Description
fsGroup	No	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>

Parameter	Mandatory	Type	Description
fsGroupChangePolicy	No	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	No	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

Parameter	Mandatory	Type	Description
runAsUser	No	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seLinuxOptions	No	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	No	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	No	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	No	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	No	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6444** io.k8s.api.core.v1.SELinuxOptions

Parameter	Mandatory	Type	Description
level	No	String	Level is SELinux level label that applies to the container.
role	No	String	Role is a SELinux role label that applies to the container.
type	No	String	Type is a SELinux type label that applies to the container.
user	No	String	User is a SELinux user label that applies to the container.

**Table 5-6445** io.k8s.api.core.v1.SeccompProfile

Parameter	Mandatory	Type	Description
localhostProfile	No	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	Yes	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-6446** io.k8s.api.core.v1.Sysctl

Parameter	Mandatory	Type	Description
name	Yes	String	Name of a property to set
value	Yes	String	Value of a property to set

**Table 5-6447** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Mandatory	Type	Description
gmsaCredentialSpec	No	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the <code>GMSACredentialSpecName</code> field.
gmsaCredentialSpecName	No	String	<code>GMSACredentialSpecName</code> is the name of the GMSA credential spec to use.
runAsUserName	No	String	The <code>UserName</code> in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in <code>PodSecurityContext</code> . If set in both <code>SecurityContext</code> and <code>PodSecurityContext</code> , the value specified in <code>SecurityContext</code> takes precedence.

**Table 5-6448** io.k8s.api.core.v1.Toleration

Parameter	Mandatory	Type	Description
effect	No	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are <code>NoSchedule</code> , <code>PreferNoSchedule</code> and <code>NoExecute</code> .
key	No	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be <code>Exists</code> ; this combination means to match all values and all keys.

Parameter	Mandatory	Type	Description
operator	No	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	No	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	No	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-6449** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Mandatory	Type	Description
labelSelector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.



Parameter	Mandatory	Type	Description
maxSkew	Yes	Integer	<p>MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i>, it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3     P   P     - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1 (zone2) would make the ActualSkew(2-0) on zone1 (zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i>, it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.</p>
topologyKey	Yes	String	<p>TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each &lt;key, value&gt; as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.</p>

Parameter	Mandatory	Type	Description
whenUnsatisfiable	Yes	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3     P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-6450** io.k8s.api.core.v1.Volume

Parameter	Mandatory	Type	Description
awsElasticBlockStore	No	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

Parameter	Mandatory	Type	Description
azureDisk	No	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	No	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	No	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	No	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	No	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	No	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	No	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	No	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Mandatory	Type	Description
ephemeral	No	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	No	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	<p>FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.</p>
flexVolume	No	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	<p>FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.</p>

Parameter	Mandatory	Type	Description
flocker	No	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	No	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
gitRepo	No	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	No	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	No	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	No	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>

Parameter	Mandatory	Type	Description
localDir	No	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	Yes	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	No	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	No	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine
portworxVolume	No	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	No	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	No	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime

Parameter	Mandatory	Type	Description
rbd	No	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	No	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	No	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	No	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	No	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-6451** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

Parameter	Mandatory	Type	Description
partition	No	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	No	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticsearch">https://kubernetes.io/docs/concepts/storage/volumes#awselasticsearch</a>
volumeID	Yes	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticsearch">https://kubernetes.io/docs/concepts/storage/volumes#awselasticsearch</a>

**Table 5-6452** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Mandatory	Type	Description
cachingMode	No	String	Host Caching mode: None, Read Only, Read Write.
diskName	Yes	String	The Name of the data disk in the blob storage
diskURI	Yes	String	The URI the data disk in the blob storage
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.



Parameter	Mandatory	Type	Description
kind	No	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-6453** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	Yes	String	the name of secret that contains Azure Storage Account Name and Key
shareName	Yes	String	Share Name

**Table 5-6454** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Mandatory	Type	Description
monitors	Yes	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	No	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	No	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a>	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	No	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-6455** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

Parameter	Mandatory	Type	Description
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	Yes	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-6456** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6457** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Mandatory	Type	Description
driver	Yes	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	No	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	No	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Mandatory	Type	Description
volumeAttributes	No	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-6458** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits to use on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	No	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-6459** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Mandatory	Type	Description
medium	No	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	No	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-6460** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Mandatory	Type	Description
volumeClaimTemplate	No	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-6461** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Mandatory	Type	Description
metadata	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	Yes	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-6462** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Mandatory	Type	Description
annotations	No	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.



Parameter	Mandatory	Type	Description
creationTimestamp	No	String	<p>CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.</p> <p>Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>
deletionGracePeriodSeconds	No	Long	<p>Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.</p>

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Mandatory	Type	Description
finalizers	No	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.

Parameter	Mandatory	Type	Description
generateName	No	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	No	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.
labels	No	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>

Parameter	Mandatory	Type	Description
managedFields	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	No	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	No	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>

Parameter	Mandatory	Type	Description
ownerReferences	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
resourceVersion	No	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

Parameter	Mandatory	Type	Description
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-6463** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	No	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	No	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.
manager	No	String	Manager is an identifier of the workflow managing these fields.
operation	No	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	No	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-6464** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	No	Boolean	If true, this reference points to the managing controller.
kind	Yes	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	Yes	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	Yes	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-6465** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>



Parameter	Mandatory	Type	Description
dataSource	No	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	No	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	No	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	No	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>

Parameter	Mandatory	Type	Description
volumeMode	No	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	No	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-6466** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Mandatory	Type	Description
apiGroup	No	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.
kind	Yes	String	Kind is the type of resource being referenced
name	Yes	String	Name is the name of resource being referenced

**Table 5-6467** io.k8s.api.core.v1.ResourceRequirements

Parameter	Mandatory	Type	Description
limits	No	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Mandatory	Type	Description
requests	No	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-6468** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	No	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-6469** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Mandatory	Type	Description
key	Yes	String	key is the label key that the selector applies to.
operator	Yes	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.

Parameter	Mandatory	Type	Description
values	No	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-6470** io.k8s.api.core.v1.FCVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	No	Integer	Optional: FC target lun number
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	No	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	No	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-6471** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Mandatory	Type	Description
driver	Yes	String	Driver is the name of the driver to use for this volume.

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	No	Map<String,String>	Optional: Extra command options if any.
readOnly	No	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-6472** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Mandatory	Type	Description
datasetName	No	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	No	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-6473** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	No	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	Yes	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-6474** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Mandatory	Type	Description
directory	No	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	Yes	String	Repository URL
revision	No	String	Commit hash for the specified revision.

**Table 5-6475** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Mandatory	Type	Description
endpoints	Yes	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	Yes	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	No	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-6476** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Mandatory	Type	Description
path	Yes	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
type	No	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-6477** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Mandatory	Type	Description
chapAuthDiscovery	No	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	No	Boolean	whether support iSCSI Session CHAP authentication
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	No	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	Yes	String	Target iSCSI Qualified Name.
iscsiInterface	No	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Yes	Integer	iSCSI Target Lun number.



Parameter	Mandatory	Type	Description
portals	No	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	Yes	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-6478** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Mandatory	Type	Description
sizeLimit	No	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that:</p> <ol style="list-style-type: none"> <li>No precision is lost b.</li> <li>No fractional digits will be emitted c.</li> <li>The exponent (or</li> </ol>

Parameter	Mandatory	Type	Description
			<p>suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that will cause implementors to also use a fixed point implementation.</p>

**Table 5-6479** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Mandatory	Type	Description
path	Yes	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	No	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	Yes	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-6480** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Mandatory	Type	Description
claimName	Yes	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	No	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-6481** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	Yes	String	ID that identifies Photon Controller persistent disk

**Table 5-6482** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	FSType represents the filesystem type to mount Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	Yes	String	VolumeID uniquely identifies a Portworx volume

**Table 5-6483** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Yes	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-6484** io.k8s.api.core.v1.VolumeProjection

Parameter	Mandatory	Type	Description
configMap	No	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	No	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project
secret	No	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	No	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-6485** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6486** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-6487** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Mandatory	Type	Description
fieldRef	No	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.

Parameter	Mandatory	Type	Description
mode	No	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	Yes	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	No	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-6488** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Mandatory	Type	Description
apiVersion	No	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	Yes	String	Path of the field to select in the specified API version.

**Table 5-6489** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Mandatory	Type	Description
containerName	No	String	Container name: required for volumes, optional for env vars

Parameter	Mandatory	Type	Description
divisor	No	String	Specifies the output format of the exposed resources, defaults to "1"
resource	Yes	String	Required: resource to select

**Table 5-6490** io.k8s.api.core.v1.SecretProjection

Parameter	Mandatory	Type	Description
items	No	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	No	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	No	Boolean	Specify whether the Secret or its key must be defined



**Table 5-6491** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Mandatory	Type	Description
audience	No	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	No	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	Yes	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-6492** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Mandatory	Type	Description
group	No	String	Group to map volume access to Default is no group
readOnly	No	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	Yes	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes

Parameter	Mandatory	Type	Description
tenant	No	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	No	String	User to map volume access to Defaults to serviceaccount user
volume	Yes	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-6493** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	Yes	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	No	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Yes	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
pool	No	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Mandatory	Type	Description
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	No	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-6494** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	Yes	String	The host address of the ScaleIO API Gateway.
protectionDomain	No	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	Yes	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	No	Boolean	Flag to enable/disable SSL communication with Gateway, default false

Parameter	Mandatory	Type	Description
storageMode	No	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	No	String	The ScaleIO Storage Pool associated with the protection domain.
system	Yes	String	The name of the storage system as configured in ScaleIO.
volumeName	No	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-6495** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Mandatory	Type	Description
defaultMode	No	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.

Parameter	Mandatory	Type	Description
items	No	Array of <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	No	Boolean	Specify whether the Secret or its keys must be defined
secretName	No	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-6496** io.k8s.api.core.v1.KeyToPath

Parameter	Mandatory	Type	Description
key	Yes	String	The key to project.
mode	No	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.

Parameter	Mandatory	Type	Description
path	Yes	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-6497** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	No	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	No	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	No	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.

Parameter	Mandatory	Type	Description
volumeNamespace	No	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-6498** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Mandatory	Type	Description
fsType	No	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	No	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	No	String	Storage Policy Based Management (SPBM) profile name.
volumePath	Yes	String	Path that identifies vSphere volume vmdk

**Table 5-6499** io.k8s.api.batch.v1.JobStatus

Parameter	Mandatory	Type	Description
active	No	Integer	The number of actively running pods.

Parameter	Mandatory	Type	Description
completionTime	No	String	Represents time when the job was completed. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
conditions	No	Array of <a href="#">io.k8s.api.batch.v1.JobCondition</a> objects	The latest available observations of an object's current state. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
failed	No	Integer	The number of pods which reached phase Failed.
startTime	No	String	Represents time when the job was acknowledged by the job controller. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
succeeded	No	Integer	The number of pods which reached phase Succeeded.

**Table 5-6500** io.k8s.api.batch.v1.JobCondition

Parameter	Mandatory	Type	Description
lastProbeTime	No	String	Last time the condition was checked.
lastTransitionTime	No	String	Last time the condition transit from one status to another.
message	No	String	Human readable message indicating details about last transition.
reason	No	String	(brief) reason for the condition's last transition.
status	Yes	String	Status of the condition, one of True, False, Unknown.
type	Yes	String	Type of job condition, Complete or Failed.



## Response Parameters

Status code: 200

**Table 5-6501** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.batch.v1.JobSpec</a> object	Specification of the desired behavior of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.batch.v1.JobStatus</a> object	Current status of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6502** io.k8s.api.batch.v1.JobSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Specifies the duration in seconds relative to the startTime that the job may be active before the system tries to terminate it; value must be positive integer

Parameter	Type	Description
backoffLimit	Integer	Specifies the number of retries before marking this job failed. Defaults to 6
completions	Integer	Specifies the desired number of successfully finished pods the job should be run with. Setting to nil means that the success of any pod signals the success of all pods, and allows parallelism to have any positive value. Setting to 1 means that parallelism is limited to 1 and the success of that pod signals the success of the job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
manualSelector or	Boolean	manualSelector controls generation of pod labels and pod selectors. Leave <i>manualSelector</i> unset unless you are certain what you are doing. When false or unset, the system pick labels unique to this job and appends those labels to the pod template. When true, the user is responsible for picking unique labels and specifying the selector. Failure to pick a unique label may cause this and other jobs to not function correctly. However, You may see <i>manualSelector=true</i> in jobs that were created with the old <i>extensions/v1beta1</i> API. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector</a>
parallelism	Integer	Specifies the maximum desired number of pods the job should run at any given time. The actual number of pods running in steady state will be less than this number when $((\text{.spec.completions} - \text{.status.successful}) < \text{.spec.parallelism})$ , i.e. when the work left to do is less than max parallelism. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over pods that should match the pod count. Normally, the system sets this field for you. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Describes the pod that will be created when executing a job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>

Parameter	Type	Description
ttlSecondsAfterFinished	Integer	ttlSecondsAfterFinished limits the lifetime of a Job that has finished execution (either Complete or Failed). If this field is set, ttlSecondsAfterFinished after the Job finishes, it is eligible to be automatically deleted. When the Job is being deleted, its lifecycle guarantees (e.g. finalizers) will be honored. If this field is unset, the Job won't be automatically deleted. If this field is set to zero, the Job becomes eligible to be deleted immediately after it finishes. This field is alpha-level and is only honored by servers that enable the TTLAfterFinished feature.

**Table 5-6503** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6504** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.

Parameter	Type	Description
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAlias</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.

Parameter	Type	Description
hostname	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/objects/PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-6505** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.



Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-6506** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-6507** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.

Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-6508** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-6509** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-6510** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-6511** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-6512** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-6513** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-6514** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-6515** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-6516** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-6517** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.



Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-6518** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-6519** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-6520** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manager-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-6521** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-6522** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-6523** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-6524** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-6525** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-6526** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-6527** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-6528** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-6529** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.



Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-6530** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-6531** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6532** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-6533** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-6534** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-6535** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-6536** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-6537** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-6538** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-6539** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-6540** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-6541** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-6542** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-6543** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6544** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.



**Table 5-6545** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-6546** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-6547** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6548** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-6549** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-6550** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-6551** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-6552** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared



Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-6553** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-6554** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-6555** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-6556** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6557** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-6558** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-6559** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-6560** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-6561** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-6562** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>



Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-6563** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-6564** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-6565** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-6566** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-6567** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-6568** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-6569** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-6570** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-6571** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-6572** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-6573** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-6574** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-6575** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-6576** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>



Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-6577** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-6578** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-6579** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-6580** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-6581** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-6582** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-6583** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-6584** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-6585** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6586** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-6587** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-6588** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-6589** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-6590** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-6591** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-6592** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-6593** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>



Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-6594** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-6595** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-6596** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-6597** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-6598** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-6599** io.k8s.api.batch.v1.JobStatus

Parameter	Type	Description
active	Integer	The number of actively running pods.
completionTime	String	Represents time when the job was completed. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
conditions	Array of <a href="#">io.k8s.api.batch.v1.JobCondition</a> objects	The latest available observations of an object's current state. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
failed	Integer	The number of pods which reached phase Failed.
startTime	String	Represents time when the job was acknowledged by the job controller. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
succeeded	Integer	The number of pods which reached phase Succeeded.

**Table 5-6600** io.k8s.api.batch.v1.JobCondition

Parameter	Type	Description
lastProbeTime	String	Last time the condition was checked.

Parameter	Type	Description
lastTransitionTime	String	Last time the condition transit from one status to another.
message	String	Human readable message indicating details about last transition.
reason	String	(brief) reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of job condition, Complete or Failed.

**Status code: 201**

**Table 5-6601** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.batch.v1.JobSpec</a> object	Specification of the desired behavior of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.batch.v1.JobStatus</a> object	Current status of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6602** io.k8s.api.batch.v1.JobSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Specifies the duration in seconds relative to the startTime that the job may be active before the system tries to terminate it; value must be positive integer
backoffLimit	Integer	Specifies the number of retries before marking this job failed. Defaults to 6
completions	Integer	Specifies the desired number of successfully finished pods the job should be run with. Setting to nil means that the success of any pod signals the success of all pods, and allows parallelism to have any positive value. Setting to 1 means that parallelism is limited to 1 and the success of that pod signals the success of the job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
manualSelector	Boolean	manualSelector controls generation of pod labels and pod selectors. Leave <i>manualSelector</i> unset unless you are certain what you are doing. When false or unset, the system pick labels unique to this job and appends those labels to the pod template. When true, the user is responsible for picking unique labels and specifying the selector. Failure to pick a unique label may cause this and other jobs to not function correctly. However, You may see <i>manualSelector=true</i> in jobs that were created with the old <i>extensions/v1beta1</i> API. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector</a>
parallelism	Integer	Specifies the maximum desired number of pods the job should run at any given time. The actual number of pods running in steady state will be less than this number when $(.spec.completions - .status.successful) < .spec.parallelism$ , i.e. when the work left to do is less than max parallelism. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over pods that should match the pod count. Normally, the system sets this field for you. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>

Parameter	Type	Description
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Describes the pod that will be created when executing a job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
ttlSecondsAfterFinished	Integer	ttlSecondsAfterFinished limits the lifetime of a Job that has finished execution (either Complete or Failed). If this field is set, ttlSecondsAfterFinished after the Job finishes, it is eligible to be automatically deleted. When the Job is being deleted, its lifecycle guarantees (e.g. finalizers) will be honored. If this field is unset, the Job won't be automatically deleted. If this field is set to zero, the Job becomes eligible to be deleted immediately after it finishes. This field is alpha-level and is only honored by servers that enable the TTLAfterFinished feature.

**Table 5-6603** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6604** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints

Parameter	Type	Description
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.



Parameter	Type	Description
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/LocalObjectReference">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/api-reference/v1/objects/Container">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.

Parameter	Type	Description
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.

Parameter	Type	Description
readinessGate s	Array of <a href="#">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClass Name	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerNa me	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityConte xt	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccoun t	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccoun tName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>

Parameter	Type	Description
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.

Parameter	Type	Description
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-6605** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-6606** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-6607** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-6608** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-6609** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-6610** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-6611** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-6612** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.



**Table 5-6613** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-6614** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-6615** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-6616** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-6617** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-6618** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-6619** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-6620** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.



Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-6621** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-6622** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-6623** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-6624** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-6625** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-6626** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-6627** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-6628** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-6629** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-6630** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-6631** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6632** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-6633** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-6634** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-6635** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.



**Table 5-6636** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-6637** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-6638** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-6639** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'. Must not contain '..'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-6640** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-6641** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-6642** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-6643** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>
fsGroupChangePolicy	String	<p>fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".</p>
runAsGroup	Long	<p>The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>
runAsNonRoot	Boolean	<p>Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.</p>
runAsUser	Long	<p>The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6644** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-6645** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-6646** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-6647** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6648** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-6649** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-6650** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>



Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-6651** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-6652** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-6653** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-6654** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-6655** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-6656** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6657** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-6658** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-6659** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-6660** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).



Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-6661** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-6662** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.</p> <p>Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a></p>
selfLink	String	<p>SelfLink is a URL representing this object. Populated by the system. Read-only.</p> <p>DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.</p>
uid	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.</p> <p>Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a></p>

**Table 5-6663** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	<p>APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.</p>
fieldsType	String	<p>FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"</p>
fieldsV1	Object	<p>FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.</p>

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-6664** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-6665** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-6666** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.



Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-6667** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-6668** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-6669** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-6670** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-6671** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-6672** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-6673** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-6674** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-6675** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-6676** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-6677** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-6678** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-6679** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-6680** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-6681** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-6682** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-6683** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-6684** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project



Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-6685** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6686** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-6687** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-6688** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-6689** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-6690** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-6691** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-6692** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-6693** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-6694** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-6695** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-6696** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-6697** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-6698** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-6699** io.k8s.api.batch.v1.JobStatus

Parameter	Type	Description
active	Integer	The number of actively running pods.
completionTime	String	Represents time when the job was completed. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
conditions	Array of <a href="#">io.k8s.api.batch.v1.JobCondition</a> objects	The latest available observations of an object's current state. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
failed	Integer	The number of pods which reached phase Failed.
startTime	String	Represents time when the job was acknowledged by the job controller. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
succeeded	Integer	The number of pods which reached phase Succeeded.

**Table 5-6700** io.k8s.api.batch.v1.JobCondition

Parameter	Type	Description
lastProbeTime	String	Last time the condition was checked.



Parameter	Type	Description
lastTransition Time	String	Last time the condition transit from one status to another.
message	String	Human readable message indicating details about last transition.
reason	String	(brief) reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of job condition, Complete or Failed.

## Example Requests

Adding the **"app":"test2"** value to the **labels** for an existing job

```
{
  "apiVersion": "batch/v1",
  "kind": "Job",
  "metadata": {
    "creationTimestamp": "2018-09-05T01:10:59Z",
    "labels": {
      "app": "test2",
      "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4",
      "job-name": "pi"
    },
    "name": "pi",
    "namespace": "namespace-test",
    "resourceVersion": "5398083",
    "selfLink": "/apis/batch/v1/namespaces/namespace-test/jobs/pi",
    "uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4"
  },
  "spec": {
    "backoffLimit": 6,
    "completions": 1,
    "parallelism": 1,
    "selector": {
      "matchLabels": {
        "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4"
      }
    },
    "template": {
      "metadata": {
        "annotations": {
          "cri.cci.io/container-type": "secure-container"
        }
      },
      "creationTimestamp": null,
      "labels": {
        "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4",
        "job-name": "pi"
      },
      "name": "pi"
    },
    "spec": {
      "containers": [ {
        "command": [ "perl", "-Mbignum=bpi", "-wle", "print bpi(2000)" ],
        "image": "perl",
        "imagePullPolicy": "Always",
        "name": "pi",
        "resources": {
          "limits": {
```

```
    "cpu": "500m",
    "memory": "1Gi"
  },
  "requests": {
    "cpu": "500m",
    "memory": "1Gi"
  }
},
"terminationMessagePath": "/dev/termination-log",
"terminationMessagePolicy": "File"
}],
"dnsPolicy": "ClusterFirst",
"imagePullSecrets": [ {
  "name": "imagepull-secret"
}],
"restartPolicy": "Never",
"schedulerName": "default-scheduler",
"securityContext": { }
}
},
"status": {
  "active": 1,
  "startTime": "2018-09-05T01:10:59Z"
}
}
```

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "batch/v1",
  "kind": "Job",
  "metadata": {
    "creationTimestamp": "2018-09-05T01:10:59Z",
    "labels": {
      "app": "test2",
      "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4",
      "job-name": "pi"
    },
    "name": "pi",
    "namespace": "namespace-test",
    "resourceVersion": "5400771",
    "selfLink": "/apis/batch/v1/namespaces/namespace-test/jobs/pi",
    "uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4"
  },
  "spec": {
    "backoffLimit": 6,
    "completions": 1,
    "parallelism": 1,
    "selector": {
      "matchLabels": {
        "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4"
      }
    },
  },
  "template": {
    "metadata": {
      "annotations": {
        "cri.cci.io/container-type": "secure-container"
      },
      "creationTimestamp": null,
      "labels": {
        "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4",
        "job-name": "pi"
      },
    },
    "name": "pi"
  }
}
```

```

    },
    "spec" : {
      "containers" : [ {
        "command" : [ "perl", "-Mbignum=bpi", "-wle", "print bpi(2000)" ],
        "image" : "perl",
        "imagePullPolicy" : "Always",
        "name" : "pi",
        "resources" : {
          "limits" : {
            "cpu" : "500m",
            "memory" : "1Gi"
          },
          "requests" : {
            "cpu" : "500m",
            "memory" : "1Gi"
          }
        }
      } ],
      "terminationMessagePath" : "/dev/termination-log",
      "terminationMessagePolicy" : "File"
    },
    "dnsPolicy" : "ClusterFirst",
    "imagePullSecrets" : [ {
      "name" : "imagepull-secret"
    } ],
    "restartPolicy" : "Never",
    "schedulerName" : "default-scheduler",
    "securityContext" : { }
  }
}
},
"status" : {
  "active" : 1,
  "startTime" : "2018-09-05T01:10:59Z"
}
}

```

## Status Codes

Status Code	Description
200	OK
201	Created
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests

Status Code	Description
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.20.9 Querying the Status of a Job

### Function

This API is used to query the status of a specified job.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/batch/v1/namespaces/{namespace}/jobs/{name}/status

**Table 5-6701** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the Job
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-6702** Query Parameters

Parameter	Mandatory	Type	Description
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-6703** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-6704** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.batch.v1.JobSpec</a> object	Specification of the desired behavior of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.batch.v1.JobStatus</a> object	Current status of a job. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6705** io.k8s.api.batch.v1.JobSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Specifies the duration in seconds relative to the startTime that the job may be active before the system tries to terminate it; value must be positive integer
backoffLimit	Integer	Specifies the number of retries before marking this job failed. Defaults to 6
completions	Integer	Specifies the desired number of successfully finished pods the job should be run with. Setting to nil means that the success of any pod signals the success of all pods, and allows parallelism to have any positive value. Setting to 1 means that parallelism is limited to 1 and the success of that pod signals the success of the job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
manualSelector	Boolean	manualSelector controls generation of pod labels and pod selectors. Leave <i>manualSelector</i> unset unless you are certain what you are doing. When false or unset, the system pick labels unique to this job and appends those labels to the pod template. When true, the user is responsible for picking unique labels and specifying the selector. Failure to pick a unique label may cause this and other jobs to not function correctly. However, You may see <i>manualSelector=true</i> in jobs that were created with the old <i>extensions/v1beta1</i> API. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/#specifying-your-own-pod-selector</a>
parallelism	Integer	Specifies the maximum desired number of pods the job should run at any given time. The actual number of pods running in steady state will be less than this number when $((.spec.completions - .status.successful) < .spec.parallelism)$ , i.e. when the work left to do is less than max parallelism. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>

Parameter	Type	Description
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over pods that should match the pod count. Normally, the system sets this field for you. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Describes the pod that will be created when executing a job. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
ttlSecondsAfterFinished	Integer	ttlSecondsAfterFinished limits the lifetime of a Job that has finished execution (either Complete or Failed). If this field is set, ttlSecondsAfterFinished after the Job finishes, it is eligible to be automatically deleted. When the Job is being deleted, its lifecycle guarantees (e.g. finalizers) will be honored. If this field is unset, the Job won't be automatically deleted. If this field is set to zero, the Job becomes eligible to be deleted immediately after it finishes. This field is alpha-level and is only honored by servers that enable the TTLAfterFinished feature.

**Table 5-6706** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6707** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.



Parameter	Type	Description
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="#">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>

Parameter	Type	Description
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.

Parameter	Type	Description
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://github.com/kubernetes/api/blob/master/core/v1/pod_readiness_gates.go">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="https://github.com/kubernetes/api/blob/master/core/v1/pod_security_context.go">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.

Parameter	Type	Description
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="https://kubernetes.io/docs/reference/generated/kubernetes-api/v1.27/#toleration-v1-core">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.

Parameter	Type	Description
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-6708** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-6709** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-6710** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-6711** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-6712** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-6713** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-6714** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-6715** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.



**Table 5-6716** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-6717** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-6718** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-6719** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-6720** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-6721** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-6722** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-6723** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.



Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-6724** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-6725** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-6726** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-6727** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-6728** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-6729** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-6730** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-6731** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-6732** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-6733** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-6734** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6735** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-6736** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-6737** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-6738** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.



**Table 5-6739** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-6740** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-6741** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-6742** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-6743** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-6744** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-6745** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-6746** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>
fsGroupChangePolicy	String	<p>fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".</p>
runAsGroup	Long	<p>The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>
runAsNonRoot	Boolean	<p>Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.</p>
runAsUser	Long	<p>The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6747** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-6748** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-6749** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-6750** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6751** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-6752** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-6753** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>



Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-6754** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-6755** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-6756** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-6757** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-6758** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-6759** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6760** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-6761** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-6762** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-6763** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).



Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-6764** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-6765** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.
generateName	String	GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.  If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).  Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a>
generation	Long	A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-6766** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-6767** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-6768** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-6769** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.



Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-6770** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-6771** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-6772** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-6773** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-6774** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-6775** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-6776** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-6777** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-6778** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-6779** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-6780** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-6781** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-6782** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-6783** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-6784** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-6785** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-6786** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-6787** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project



Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-6788** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6789** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-6790** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-6791** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-6792** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-6793** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-6794** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-6795** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-6796** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-6797** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-6798** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-6799** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-6800** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-6801** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-6802** io.k8s.api.batch.v1.JobStatus

Parameter	Type	Description
active	Integer	The number of actively running pods.
completionTime	String	Represents time when the job was completed. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
conditions	Array of <a href="#">io.k8s.api.batch.v1.JobCondition</a> objects	The latest available observations of an object's current state. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/">https://kubernetes.io/docs/concepts/workloads/controllers/jobs-run-to-completion/</a>
failed	Integer	The number of pods which reached phase Failed.
startTime	String	Represents time when the job was acknowledged by the job controller. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
succeeded	Integer	The number of pods which reached phase Succeeded.

**Table 5-6803** io.k8s.api.batch.v1.JobCondition

Parameter	Type	Description
lastProbeTime	String	Last time the condition was checked.



Parameter	Type	Description
lastTransition Time	String	Last time the condition transit from one status to another.
message	String	Human readable message indicating details about last transition.
reason	String	(brief) reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of job condition, Complete or Failed.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "batch/v1",
  "kind": "Job",
  "metadata": {
    "creationTimestamp": "2018-09-05T01:10:59Z",
    "labels": {
      "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4",
      "job-name": "pi"
    },
    "name": "pi",
    "namespace": "namespace-test",
    "resourceVersion": "5391205",
    "selfLink": "/apis/batch/v1/namespaces/namespace-test/jobs/pi/status",
    "uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4"
  },
  "spec": {
    "backoffLimit": 6,
    "completions": 1,
    "parallelism": 1,
    "selector": {
      "matchLabels": {
        "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4"
      }
    },
    "template": {
      "metadata": {
        "annotations": {
          "cri.cci.io/container-type": "secure-container"
        },
        "creationTimestamp": null,
        "labels": {
          "controller-uid": "8c923079-b0a8-11e8-8bcb-f898ef6c78b4",
          "job-name": "pi"
        },
        "name": "pi"
      },
      "spec": {
```

```
"containers": [ {
  "command": [ "perl", "-Mbignum=bpi", "-wle", "print bpi(2000)" ],
  "image": "perl",
  "imagePullPolicy": "Always",
  "name": "pi",
  "resources": {
    "limits": {
      "cpu": "500m",
      "memory": "1Gi"
    },
    "requests": {
      "cpu": "500m",
      "memory": "1Gi"
    }
  },
  "terminationMessagePath": "/dev/termination-log",
  "terminationMessagePolicy": "File"
} ],
"dnsPolicy": "ClusterFirst",
"imagePullSecrets": [ {
  "name": "imagepull-secret"
} ],
"restartPolicy": "Never",
"schedulerName": "default-scheduler",
"securityContext": { }
}
},
"status": {
  "active": 1,
  "startTime": "2018-09-05T01:10:59Z"
}
}
```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable

Status Code	Description
504	ServerTimeout

## 5.21 ReplicaSet

### 5.21.1 Querying ReplicaSets in a Namespace

#### Function

This API is used to read all ReplicaSets in a specified namespace.

#### Calling Method

For details, see [Calling APIs](#).

#### URI

GET /apis/apps/v1/namespaces/{namespace}/replicasets

**Table 5-6804** Path Parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	object name and auth scope, such as for teams and projects

**Table 5-6805** Query Parameters

Parameter	Mandatory	Type	Description
allowWatchBookmarks	No	Boolean	allowWatchBookmarks requests watch events with type "BOOKMARK". Servers that do not implement bookmarks may ignore this flag and bookmarks are sent at the server's discretion. Clients should not assume bookmarks are returned at any specific interval, nor may they assume the server will send any BOOKMARK event during a session. If this is not a watch, this field is ignored. If the feature gate WatchBookmarks is not enabled in apiserver, this field is ignored.

Parameter	Mandatory	Type	Description
continue	No	String	<p>The continue option should be set when retrieving more results from the server. Since this value is server defined, clients may only use the continue value from a previous query result with identical query parameters (except for the value of continue) and the server may reject a continue value it does not recognize. If the specified continue value is no longer valid whether due to expiration (generally five to fifteen minutes) or a configuration change on the server, the server will respond with a 410 ResourceExpired error together with a continue token. If the client needs a consistent list, it must restart their list without the continue field. Otherwise, the client may send another list request with the token received with the 410 error, the server will respond with a list starting from the next key, but from the latest snapshot, which is inconsistent from the previous list results - objects that are created, modified, or deleted after the first list request will be included in the response, as long as their keys are after the "next key".</p> <p>This field is not supported when watch is true. Clients may start a watch from the last resourceVersion value returned by the server and not miss any modifications.</p>
fieldSelector	No	String	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	String	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Type	Description
limit	No	Integer	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the <i>continue</i> field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested amount of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	resourceVersion sets a constraint on what resource versions a request may be served from. See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
resourceVersionMatch	No	String	resourceVersionMatch determines how resourceVersion is applied to list calls. It is highly recommended that resourceVersionMatch be set for list calls where resourceVersion is set See <a href="https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions">https://kubernetes.io/docs/reference/using-api/api-concepts/#resource-versions</a> for details. Defaults to unset
timeoutSeconds	No	Integer	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.
watch	No	Boolean	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-6806** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

Status code: 200

**Table 5-6807** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
items	Array of <a href="#">io.k8s.api.apps.v1.ReplicaSet</a> objects	List of ReplicaSets. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/replicationcontroller">https://kubernetes.io/docs/concepts/workloads/controllers/replicationcontroller</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta</a> object	Standard list metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>



**Table 5-6808** io.k8s.api.apps.v1.ReplicaSet

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	If the Labels of a ReplicaSet are empty, they are defaulted to be the same as the Pod(s) that the ReplicaSet manages. Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.apps.v1.ReplicaSetSpec</a> object	Spec defines the specification of the desired behavior of the ReplicaSet. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.apps.v1.ReplicaSetStatus</a> object	Status is the most recently observed status of the ReplicaSet. This data may be out of date by some window of time. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6809** io.k8s.api.apps.v1.ReplicaSetSpec

Parameter	Type	Description
minReadySeconds	Integer	Minimum number of seconds for which a newly created pod should be ready without any of its container crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)

Parameter	Type	Description
replicas	Integer	Replicas is the number of desired replicas. This is a pointer to distinguish between explicit zero and unspecified. Defaults to 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/replicationcontroller/#what-is-a-replicationcontroller">https://kubernetes.io/docs/concepts/workloads/controllers/replicationcontroller/#what-is-a-replicationcontroller</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	Selector is a label query over pods that should match the replica count. Label keys and values that must match in order to be controlled by this replica set. It must match the pod template's labels. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Template is the object that describes the pod that will be created if insufficient replicas are detected. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/replicationcontroller#pod-template">https://kubernetes.io/docs/concepts/workloads/controllers/replicationcontroller#pod-template</a>

**Table 5-6810** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6811** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.

Parameter	Type	Description
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.

Parameter	Type	Description
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostname	String	Specifies the hostname of the Pod If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.

Parameter	Type	Description
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.

Parameter	Type	Description
readinessGate s	Array of <a href="#">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClass Name	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerNa me	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityConte xt	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccoun t	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccoun tName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>

Parameter	Type	Description
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.

Parameter	Type	Description
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-6812** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-6813** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.



Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-6814** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-6815** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-6816** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-6817** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-6818** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-6819** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-6820** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-6821** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-6822** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.

Parameter	Type	Description
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-6823** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-6824** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>

Parameter	Type	Description
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-6825** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-6826** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>



**Table 5-6827** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-6828** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-6829** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-6830** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-6831** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-6832** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-6833** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-6834** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-6835** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-6836** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-6837** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-6838** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.



Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6839** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-6840** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-6841** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-6842** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-6843** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-6844** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-6845** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-6846** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'. Must not contain '..'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-6847** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-6848** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-6849** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-6850** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	<p>A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning GID will be the FSGroup</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSGroup)</li> <li>3. The permission bits are OR'd with rw-rw----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>
fsGroupChangePolicy	String	<p>fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".</p>
runAsGroup	Long	<p>The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>
runAsNonRoot	Boolean	<p>Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.</p>
runAsUser	Long	<p>The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.</p>

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6851** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.

**Table 5-6852** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-6853** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-6854** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.



**Table 5-6855** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-6856** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-6857** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-6858** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-6859** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-6860** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-6861** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>



**Table 5-6862** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-6863** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6864** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-6865** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-6866** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-6867** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-6868** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-6869** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>

Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.



Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-6870** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-6871** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-6872** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-6873** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-6874** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-6875** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-6876** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-6877** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-6878** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-6879** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-6880** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-6881** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-6882** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-6883** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-6884** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).



**Table 5-6885** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-6886** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-6887** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-6888** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-6889** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-6890** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-6891** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-6892** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6893** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-6894** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-6895** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-6896** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-6897** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-6898** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-6899** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-6900** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-6901** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.



Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-6902** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-6903** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-6904** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-6905** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-6906** io.k8s.api.apps.v1.ReplicaSetStatus

Parameter	Type	Description
availableReplicas	Integer	The number of available replicas (ready for at least minReadySeconds) for this replica set.
conditions	Array of <a href="#">io.k8s.api.apps.v1.ReplicaSetCondition</a> objects	Represents the latest available observations of a replica set's current state.
fullyLabeledReplicas	Integer	The number of pods that have labels matching the labels of the pod template of the replicaset.
observedGeneration	Long	ObservedGeneration reflects the generation of the most recently observed ReplicaSet.
readyReplicas	Integer	The number of ready replicas for this replica set.
replicas	Integer	Replicas is the most recently observed number of replicas. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/replicationcontroller/#what-is-a-replicationcontroller">https://kubernetes.io/docs/concepts/workloads/controllers/replicationcontroller/#what-is-a-replicationcontroller</a>

**Table 5-6907** io.k8s.api.apps.v1.ReplicaSetCondition

Parameter	Type	Description
lastTransitionTime	String	The last time the condition transitioned from one status to another.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of replica set condition.

**Table 5-6908** io.k8s.apimachinery.pkg.apis.meta.v1.ListMeta

Parameter	Type	Description
continue	String	continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a consistent list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response, unless you have received this token from an error message.
remainingItemCount	Long	remainingItemCount is the number of subsequent items in the list which are not included in this list response. If the list request contained label or field selectors, then the number of remaining items is unknown and the field will be left unset and omitted during serialization. If the list is complete (either because it is not chunking or because this is the last chunk), then there are no more remaining items and this field will be left unset and omitted during serialization. Servers older than v1.15 do not set this field. The intended use of the remainingItemCount is <i>estimating</i> the size of a collection. Clients should not rely on the remainingItemCount to be set or to be exact.

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	selfLink is a URL representing this object. Populated by the system. Read-only. DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.

## Example Requests

None

## Example Responses

Status code: 200

OK

```
{
  "apiVersion": "apps/v1",
  "items": [ {
    "metadata": {
      "annotations": {
        "deployment.kubernetes.io/desired-replicas": "1",
        "deployment.kubernetes.io/max-replicas": "2",
        "deployment.kubernetes.io/revision": "1"
      },
      "creationTimestamp": "2017-12-12T11:27:15Z",
      "generation": 1,
      "labels": {
        "name": "deployment-test",
        "pod-template-hash": "800400086"
      },
      "name": "deployment-test-800400086",
      "namespace": "default",
      "ownerReferences": [ {
        "apiVersion": "extensions/v1beta1",
        "blockOwnerDeletion": true,
        "controller": true,
        "kind": "Deployment",
        "name": "deployment-test",
        "uid": "6776d16b-df2f-11e7-961f-fa163ed139d5"
      } ],
      "resourceVersion": "784294",
      "selfLink": "/apis/extensions/v1beta1/namespaces/default/replicasets/deployment-test-800400086",
      "uid": "67775454-df2f-11e7-961f-fa163ed139d5"
    },
    "spec": {
```

```
"replicas" : 1,
"selector" : {
  "matchLabels" : {
    "name" : "deployment-test",
    "pod-template-hash" : "800400086"
  }
},
"template" : {
  "metadata" : {
    "creationTimestamp" : null,
    "labels" : {
      "name" : "deployment-test",
      "pod-template-hash" : "800400086"
    }
  },
  "spec" : {
    "containers" : [ {
      "image" : "172.16.5.235:20202/test/testnginx:v3",
      "imagePullPolicy" : "IfNotPresent",
      "name" : "deployment-test",
      "resources" : { },
      "terminationMessagePath" : "/dev/termination-log",
      "terminationMessagePolicy" : "File"
    } ],
    "dnsPolicy" : "ClusterFirst",
    "restartPolicy" : "Always",
    "schedulerName" : "default-scheduler",
    "securityContext" : { }
  }
},
"status" : {
  "fullyLabeledReplicas" : 1,
  "observedGeneration" : 1,
  "replicas" : 1
}, {
  "metadata" : {
    "annotations" : {
      "deployment.kubernetes.io/desired-replicas" : "2",
      "deployment.kubernetes.io/max-replicas" : "2",
      "deployment.kubernetes.io/revision" : "1"
    },
    "creationTimestamp" : "2017-12-13T07:28:36Z",
    "generation" : 1,
    "labels" : {
      "app" : "test-pv",
      "pod-template-hash" : "446136006"
    }
  },
  "name" : "test-pv-446136006",
  "namespace" : "default",
  "ownerReferences" : [ {
    "apiVersion" : "extensions/v1beta1",
    "blockOwnerDeletion" : true,
    "controller" : true,
    "kind" : "Deployment",
    "name" : "test-pv",
    "uid" : "3b3d3a22-dfd7-11e7-961f-fa163ed139d5"
  } ],
  "resourceVersion" : "784441",
  "selfLink" : "/apis/extensions/v1beta1/namespaces/default/replicasets/test-pv-446136006",
  "uid" : "3b3dee35-dfd7-11e7-961f-fa163ed139d5"
},
"spec" : {
  "replicas" : 2,
  "selector" : {
    "matchLabels" : {
      "app" : "test-pv",
      "pod-template-hash" : "446136006"
    }
  }
}
```

```

    }
  },
  "template": {
    "metadata": {
      "annotations": {
        "metrics.alpha.kubernetes.io/custom-endpoints": "[[api:,path:,port:,names:]]"
      },
      "creationTimestamp": null,
      "labels": {
        "app": "test-pv",
        "pod-template-hash": "446136006"
      }
    },
    "spec": {
      "affinity": { },
      "containers": [ {
        "image": "172.16.5.235:20202/test/nginx:latest",
        "imagePullPolicy": "Always",
        "lifecycle": { },
        "name": "container-0",
        "resources": { },
        "terminationMessagePath": "/dev/termination-log",
        "terminationMessagePolicy": "File",
        "volumeMounts": [ {
          "mountPath": "/tmp0",
          "name": "www",
          "readOnly": true
        } ]
      } ],
      "dnsPolicy": "ClusterFirst",
      "imagePullSecrets": [ {
        "name": "imagepull-secret"
      } ],
      "restartPolicy": "Always",
      "schedulerName": "default-scheduler",
      "securityContext": { },
      "volumes": [ {
        "name": "www",
        "persistentVolumeClaim": {
          "claimName": "pvc1513149915389"
        }
      } ]
    }
  }
},
"status": {
  "availableReplicas": 2,
  "fullyLabeledReplicas": 2,
  "observedGeneration": 1,
  "readyReplicas": 2,
  "replicas": 2
}
},
"kind": "ReplicaSetList",
"metadata": {
  "resourceVersion": "793174",
  "selfLink": "/apis/apps/v1/namespaces/default/replicasets"
}
}

```

## Status Codes

Status Code	Description
200	OK

Status Code	Description
400	BadRequest
401	Unauthorized
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

## 5.21.2 Querying a ReplicaSet

### Function

This API is used to query the details about a specified ReplicaSet.

### Calling Method

For details, see [Calling APIs](#).

### URI

GET /apis/apps/v1/namespaces/{namespace}/replicasets/{name}

**Table 5-6909** Path Parameters

Parameter	Mandatory	Type	Description
name	Yes	String	name of the ReplicaSet
namespace	Yes	String	object name and auth scope, such as for teams and projects



**Table 5-6910** Query Parameters

Parameter	Mandatory	Type	Description
exact	No	Boolean	Should the export be exact. Exact export maintains cluster-specific fields like 'Namespace'. Deprecated. Planned for removal in 1.18.
export	No	Boolean	Should this value be exported. Export strips fields that a user can not specify. Deprecated. Planned for removal in 1.18.
pretty	No	String	If 'true', then the output is pretty printed.

## Request Parameters

**Table 5-6911** Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained through the IAM API used to obtain a user token. The value of <b>X-Subject-Token</b> in the response header is the user token.

## Response Parameters

**Status code: 200**

**Table 5-6912** Response body parameters

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#resources</a>

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	If the Labels of a ReplicaSet are empty, they are defaulted to be the same as the Pod(s) that the ReplicaSet manages. Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.apps.v1.ReplicaSetSpec</a> object	Spec defines the specification of the desired behavior of the ReplicaSet. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>
status	<a href="#">io.k8s.api.apps.v1.ReplicaSetStatus</a> object	Status is the most recently observed status of the ReplicaSet. This data may be out of date by some window of time. Populated by the system. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6913** io.k8s.api.apps.v1.ReplicaSetSpec

Parameter	Type	Description
minReadySeconds	Integer	Minimum number of seconds for which a newly created pod should be ready without any of its container crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)
replicas	Integer	Replicas is the number of desired replicas. This is a pointer to distinguish between explicit zero and unspecified. Defaults to 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/replicationcontroller/#what-is-a-replicationcontroller">https://kubernetes.io/docs/concepts/workloads/controllers/replicationcontroller/#what-is-a-replicationcontroller</a>

Parameter	Type	Description
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	Selector is a label query over pods that should match the replica count. Label keys and values that must match in order to be controlled by this replica set. It must match the pod template's labels. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors">https://kubernetes.io/docs/concepts/overview/working-with-objects/labels/#label-selectors</a>
template	<a href="#">io.k8s.api.core.v1.PodTemplateSpec</a> object	Template is the object that describes the pod that will be created if insufficient replicas are detected. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/replicationcontroller#pod-template">https://kubernetes.io/docs/concepts/workloads/controllers/replicationcontroller#pod-template</a>

**Table 5-6914** io.k8s.api.core.v1.PodTemplateSpec

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
spec	<a href="#">io.k8s.api.core.v1.PodSpec</a> object	Specification of the desired behavior of the pod. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#spec-and-status</a>

**Table 5-6915** io.k8s.api.core.v1.PodSpec

Parameter	Type	Description
activeDeadlineSeconds	Long	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
affinity	<a href="#">io.k8s.api.core.v1.Affinity</a> object	If specified, the pod's scheduling constraints
automountServiceAccountToken	Boolean	AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.

Parameter	Type	Description
containers	Array of <a href="#">io.k8s.api.core.v1.Container</a> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a Pod. Cannot be updated.
dnsConfig	<a href="#">io.k8s.api.core.v1.PodDNSConfig</a> object	Specifies the DNS parameters of a pod. Parameters specified here will be merged to the generated DNS configuration based on DNSPolicy.
dnsPolicy	String	Set DNS policy for the pod. Defaults to "ClusterFirst". Valid values are 'ClusterFirstWithHostNet', 'ClusterFirst', 'Default' or 'None'. DNS parameters given in DNSConfig will be merged with the policy selected with DNSPolicy. To have DNS options set along with hostNetwork, you have to specify DNS policy explicitly to 'ClusterFirstWithHostNet'.
enableServiceLinks	Boolean	EnableServiceLinks indicates whether information about services should be injected into pod's environment variables, matching the syntax of Docker links. Optional: Defaults to true.
ephemeralContainers	Array of <a href="#">io.k8s.api.core.v1.EphemeralContainer</a> objects	List of ephemeral containers run in this pod. Ephemeral containers may be run in an existing pod to perform user-initiated actions such as debugging. This list cannot be specified when creating a pod, and it cannot be modified by updating the pod spec. In order to add an ephemeral container to an existing pod, use the pod's ephemeralcontainers subresource. This field is alpha-level and is only honored by servers that enable the EphemeralContainers feature.
hostAliases	Array of <a href="#">io.k8s.api.core.v1.HostAlias</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.

Parameter	Type	Description
hostname	String	Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.
imagePullSecrets	Array of <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">io.k8s.api.core.v1.LocalObjectReference</a> objects	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use. For example, in the case of docker, only DockerConfig type secrets are honored. More info: <a href="https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod">https://kubernetes.io/docs/concepts/containers/images/#specifying-imagepullsecrets-on-a-pod</a>
initContainers	Array of <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">io.k8s.api.core.v1.Container</a> objects	List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, Liveness probes, or Startup probes. The resourceRequirements of an init container are taken into account during scheduling by finding the highest request/limit for each resource type, and then using the max of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/init-containers/">https://kubernetes.io/docs/concepts/workloads/pods/init-containers/</a>
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
nodeSelector	Map<String,String>	NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node. More info: <a href="https://kubernetes.io/docs/concepts/configuration/assign-pod-node/">https://kubernetes.io/docs/concepts/configuration/assign-pod-node/</a>

Parameter	Type	Description
overhead	Map<String,String>	Overhead represents the resource overhead associated with running a pod for a given RuntimeClass. This field will be autopopulated at admission time by the RuntimeClass admission controller. If the RuntimeClass admission controller is enabled, overhead must not be set in Pod create requests. The RuntimeClass admission controller will reject Pod create requests which have the overhead already set. If RuntimeClass is configured and selected in the PodSpec, Overhead will be set to the value defined in the corresponding RuntimeClass, otherwise it will remain unset and treated as zero. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md">https://git.k8s.io/enhancements/keps/sig-node/20190226-pod-overhead.md</a> This field is alpha-level as of Kubernetes v1.16, and is only honored by servers that enable the PodOverhead feature.
preemptionPolicy	String	PreemptionPolicy is the Policy for preempting pods with lower priority. One of Never, PreemptLowerPriority. Defaults to PreemptLowerPriority if unset. This field is beta-level, gated by the NonPreemptingPriority feature-gate.
priority	Integer	The priority value. Various system components use this field to find the priority of the pod. When Priority Admission Controller is enabled, it prevents users from setting this field. The admission controller populates this field from PriorityClassName. The higher the value, the higher the priority.
priorityClassName	String	If specified, indicates the pod's priority. "system-node-critical" and "system-cluster-critical" are two special keywords which indicate the highest priorities with the former being the highest priority. Any other name must be defined by creating a PriorityClass object with that name. If not specified, the pod priority will be default or zero if there is no default.
readinessGates	Array of <a href="https://kubernetes.io/api-reference/v1.27/api/core/#PodReadinessGate">io.k8s.api.core.v1.PodReadinessGate</a> objects	If specified, all readiness gates will be evaluated for pod readiness. A pod is ready when all its containers are ready AND all conditions specified in the readiness gates have status equal to "True" More info: <a href="https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md">https://git.k8s.io/enhancements/keps/sig-network/0007-pod-ready%2B%2B.md</a>

Parameter	Type	Description
restartPolicy	String	Restart policy for all containers within the pod. Only use Always when creating a deployment. Default to Always. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle/#restart-policy</a>
runtimeClassName	String	RuntimeClassName refers to a RuntimeClass object in the node.k8s.io group, which should be used to run this pod. If no RuntimeClass resource matches the named class, the pod will not be run. If unset or empty, the "legacy" RuntimeClass will be used, which is an implicit class with an empty definition that uses the default runtime handler. More info: <a href="https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md">https://git.k8s.io/enhancements/keps/sig-node/runtime-class.md</a> This is a beta feature as of Kubernetes v1.14.
schedulerName	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.
securityContext	<a href="#">io.k8s.api.core.v1.PodSecurityContext</a> object	SecurityContext holds pod-level security attributes and common container settings. Optional: Defaults to empty. See type description for default values of each field.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
serviceAccountName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod. More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/">https://kubernetes.io/docs/tasks/configure-pod-container/configure-service-account/</a>
setHostnameAsFQDN	Boolean	If true the pod's hostname will be configured as the pod's FQDN, rather than the leaf name (the default). In Linux containers, this means setting the FQDN in the hostname field of the kernel (the nodename field of struct utsname). In Windows containers, this means setting the registry value of hostname for the registry key HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Tcpip\Parameters to FQDN. If a pod does not have FQDN, this has no effect. Default to false.

Parameter	Type	Description
shareProcessNamespace	Boolean	Share a single process namespace between all of the containers in a pod. When this is set containers will be able to view and signal processes from other containers in the same pod, and the first process in each container will not be assigned PID 1. HostPID and ShareProcessNamespace cannot both be set. Optional: Default to false.
subdomain	String	If specified, the fully qualified Pod hostname will be "...svc.". If not specified, the pod will not have a domainname at all.
terminationGracePeriodSeconds	Long	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
tolerations	Array of <a href="#">io.k8s.api.core.v1.Toleration</a> objects	If specified, the pod's tolerations.
topologySpreadConstraints	Array of <a href="#">io.k8s.api.core.v1.TopologySpreadConstraint</a> objects	TopologySpreadConstraints describes how a group of pods ought to spread across topology domains. Scheduler will schedule pods in a way which abides by the constraints. All topologySpreadConstraints are ANDed.
volumes	Array of <a href="#">io.k8s.api.core.v1.Volume</a> objects	List of volumes that can be mounted by containers belonging to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes">https://kubernetes.io/docs/concepts/storage/volumes</a>

**Table 5-6916** io.k8s.api.core.v1.Affinity

Parameter	Type	Description
nodeAffinity	<a href="#">io.k8s.api.core.v1.NodeAffinity</a> object	Describes node affinity scheduling rules for the pod.



Parameter	Type	Description
podAffinity	<a href="#">io.k8s.api.core.v1.PodAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	<a href="#">io.k8s.api.core.v1.PodAntiAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 5-6917** io.k8s.api.core.v1.NodeAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PreferredSchedulingTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	<a href="#">io.k8s.api.core.v1.NodeSelector</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 5-6918** io.k8s.api.core.v1.PreferredSchedulingTerm

Parameter	Type	Description
preference	<a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> object	A node selector term, associated with the corresponding weight.

Parameter	Type	Description
weight	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 5-6919** io.k8s.api.core.v1.NodeSelectorTerm

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's labels.
matchFields	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorRequirement</a> objects	A list of node selector requirements by node's fields.

**Table 5-6920** io.k8s.api.core.v1.NodeSelector

Parameter	Type	Description
nodeSelectorTerms	Array of <a href="#">io.k8s.api.core.v1.NodeSelectorTerm</a> objects	Required. A list of node selector terms. The terms are ORed.

**Table 5-6921** io.k8s.api.core.v1.NodeSelectorRequirement

Parameter	Type	Description
key	String	The label key that the selector applies to.
operator	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.

Parameter	Type	Description
values	Array of strings	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 5-6922** io.k8s.api.core.v1.PodAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-6923** io.k8s.api.core.v1.PodAntiAffinity

Parameter	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.WeightedPodAffinityTerm</a> objects	The scheduler will prefer to schedule pods to nodes that satisfy the anti-affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling anti-affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods which matches the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	Array of <a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> objects	If the anti-affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the anti-affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.

**Table 5-6924** io.k8s.api.core.v1.WeightedPodAffinityTerm

Parameter	Type	Description
podAffinityTerm	<a href="#">io.k8s.api.core.v1.PodAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	Integer	weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 5-6925** io.k8s.api.core.v1.PodAffinityTerm

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	Array of strings	namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace"
topologyKey	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. Empty topologyKey is not allowed.

**Table 5-6926** io.k8s.api.core.v1.PodDNSConfig

Parameter	Type	Description
nameservers	Array of strings	A list of DNS name server IP addresses. This will be appended to the base nameservers generated from DNSPolicy. Duplicated nameservers will be removed.
options	Array of <a href="#">io.k8s.api.core.v1.PodDNSConfigOption</a> objects	A list of DNS resolver options. This will be merged with the base options generated from DNSPolicy. Duplicated entries will be removed. Resolution options given in Options will override those that appear in the base DNSPolicy.
searches	Array of strings	A list of DNS search domains for host-name lookup. This will be appended to the base search paths generated from DNSPolicy. Duplicated search paths will be removed.

**Table 5-6927** io.k8s.api.core.v1.PodDNSConfigOption

Parameter	Type	Description
name	String	Required.
value	String	value is the value of the option

**Table 5-6928** io.k8s.api.core.v1.EphemeralContainer

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a>

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Lifecycle is not allowed for ephemeral containers.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
name	String	Name of the ephemeral container specified as a DNS_LABEL. This name must be unique among all containers, init containers and ephemeral containers.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	Ports are not allowed for ephemeral containers.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources are not allowed for ephemeral containers. Ephemeral containers use spare resources already allocated to the pod.
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	SecurityContext is not allowed for ephemeral containers.
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Probes are not allowed for ephemeral containers.
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.

Parameter	Type	Description
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
targetContainerName	String	If set, the name of the container from PodSpec that this ephemeral container targets. The ephemeral container will be run in the namespaces (IPC, PID, etc) of this container. If not set then the ephemeral container is run in whatever namespaces are shared for the pod. Note that the container runtime must support this feature.
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.



Parameter	Type	Description
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-6929** io.k8s.api.core.v1.HostAlias

Parameter	Type	Description
hostnames	Array of strings	Hostnames for the above IP address.
ip	String	IP address of the host file entry.

**Table 5-6930** io.k8s.api.core.v1.LocalObjectReference

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

**Table 5-6931** io.k8s.api.core.v1.Container

Parameter	Type	Description
args	Array of strings	Arguments to the entrypoint. The docker image's CMD is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
command	Array of strings	Entrypoint array. Not executed within a shell. The docker image's ENTRYPOINT is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated. More info: <a href="https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell">https://kubernetes.io/docs/tasks/inject-data-application/define-command-argument-container/#running-a-command-in-a-shell</a>
env	Array of <a href="#">io.k8s.api.core.v1.EnvVar</a> objects	List of environment variables to set in the container. Cannot be updated.
envFrom	Array of <a href="#">io.k8s.api.core.v1.EnvFromSource</a> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.

Parameter	Type	Description
image	String	Docker image name. More info: <a href="https://kubernetes.io/docs/concepts/containers/images">https://kubernetes.io/docs/concepts/containers/images</a> This field is optional to allow higher level config management to default or override container images in workload controllers like Deployments and StatefulSets.
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/containers/images#updating-images">https://kubernetes.io/docs/concepts/containers/images#updating-images</a>
lifecycle	<a href="#">io.k8s.api.core.v1.Lifecycle</a> object	Actions that the management system should take in response to container lifecycle events. Cannot be updated.
livenessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container liveness. Container will be restarted if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
ports	Array of <a href="#">io.k8s.api.core.v1.ContainerPort</a> objects	List of ports to expose from the container. Exposing a port here gives the system additional information about the network connections a container uses, but is primarily informational. Not specifying a port here DOES NOT prevent that port from being exposed. Any port which is listening on the default "0.0.0.0" address inside a container will be accessible from the network. Cannot be updated.
readinessProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Compute Resources required by this container. Cannot be updated. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

Parameter	Type	Description
securityContext	<a href="#">io.k8s.api.core.v1.SecurityContext</a> object	Security options the pod should run with. More info: <a href="https://kubernetes.io/docs/concepts/policy/security-context/">https://kubernetes.io/docs/concepts/policy/security-context/</a> More info: <a href="https://kubernetes.io/docs/tasks/configure-pod-container/security-context/">https://kubernetes.io/docs/tasks/configure-pod-container/security-context/</a>
startupProbe	<a href="#">io.k8s.api.core.v1.Probe</a> object	StartupProbe indicates that the Pod has successfully initialized. If specified, no other probes are executed until this completes successfully. If this probe fails, the Pod will be restarted, just as if the livenessProbe failed. This can be used to provide different probe parameters at the beginning of a Pod's lifecycle, when it might take a long time to load data or warm a cache, than during steady-state operation. This cannot be updated. This is a beta feature enabled by the StartupProbe feature flag. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container processes that reads from stdin will never receive an EOF. Default is false
terminationMessagePath	String	Optional: Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Will be truncated by the node if greater than 4096 bytes. The total message length across all containers will be limited to 12kb. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
terminationMessagePolicy	String	Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error. The log output is limited to 2048 bytes or 80 lines, whichever is smaller. Defaults to File. Cannot be updated.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.
volumeDevices	Array of <a href="#">io.k8s.api.core.v1.VolumeDevice</a> objects	volumeDevices is the list of block devices to be used by the container.
volumeMounts	Array of <a href="#">io.k8s.api.core.v1.VolumeMount</a> objects	Pod volumes to mount into the container's filesystem. Cannot be updated.
workingDir	String	Container's working directory. If not specified, the container runtime's default will be used, which might be configured in the container image. Cannot be updated.

**Table 5-6932** io.k8s.api.core.v1.EnvVar

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, ie: \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Type	Description
valueFrom	<a href="#">io.k8s.api.core.v1.EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.

**Table 5-6933** io.k8s.api.core.v1.EnvVarSource

Parameter	Type	Description
configMapKeyRef	<a href="#">io.k8s.api.core.v1.ConfigMapKeySelector</a> object	Selects a key of a ConfigMap.
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Selects a field of the pod: supports <code>metadata.name</code> , <code>metadata.namespace</code> , <code>metadata.labels['&lt;KEY&gt;']</code> , <code>metadata.annotations['&lt;KEY&gt;']</code> , <code>spec.nodeName</code> , <code>spec.serviceAccountName</code> , <code>status.hostIP</code> , <code>status.podIP</code> , <code>status.podIPs</code> .
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, limits.ephemeral-storage, requests.cpu, requests.memory and requests.ephemeral-storage) are currently supported.
secretKeyRef	<a href="#">io.k8s.api.core.v1.SecretKeySelector</a> object	Selects a key of a secret in the pod's namespace

**Table 5-6934** io.k8s.api.core.v1.ConfigMapKeySelector

Parameter	Type	Description
key	String	The key to select.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its key must be defined

**Table 5-6935** io.k8s.api.core.v1.SecretKeySelector

Parameter	Type	Description
key	String	The key of the secret to select from. Must be a valid secret key.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-6936** io.k8s.api.core.v1.EnvFromSource

Parameter	Type	Description
configMapRef	<a href="#">io.k8s.api.core.v1.ConfigMapEnvSource</a> object	The ConfigMap to select from
prefix	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	<a href="#">io.k8s.api.core.v1.SecretEnvSource</a> object	The Secret to select from

**Table 5-6937** io.k8s.api.core.v1.ConfigMapEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap must be defined

**Table 5-6938** io.k8s.api.core.v1.SecretEnvSource

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>

Parameter	Type	Description
optional	Boolean	Specify whether the Secret must be defined

**Table 5-6939** io.k8s.api.core.v1.Lifecycle

Parameter	Type	Description
postStart	<a href="#">io.k8s.api.core.v1.Handler</a> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>
preStop	<a href="#">io.k8s.api.core.v1.Handler</a> object	PreStop is called immediately before a container is terminated due to an API request or management event such as liveness/startup probe failure, preemption, resource contention, etc. The handler is not called if the container crashes or exits. The reason for termination is passed to the handler. The Pod's termination grace period countdown begins before the PreStop hooked is executed. Regardless of the outcome of the handler, the container will eventually terminate within the Pod's termination grace period. Other management of the container blocks until the hook completes or until the termination grace period is reached. More info: <a href="https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks">https://kubernetes.io/docs/concepts/containers/container-lifecycle-hooks/#container-hooks</a>

**Table 5-6940** io.k8s.api.core.v1.Handler

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.



Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported

**Table 5-6941** io.k8s.api.core.v1.ContainerPort

Parameter	Type	Description
containerPort	Integer	Number of port to expose on the pod's IP address. This must be a valid port number, 0 < x < 65536.
hostIP	String	What host IP to bind the external port to.
hostPort	Integer	Number of port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
protocol	String	Protocol for port. Must be UDP, TCP, or SCTP. Defaults to "TCP".

**Table 5-6942** io.k8s.api.core.v1.SecurityContext

Parameter	Type	Description
allowPrivilegeEscalation	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN
capabilities	<a href="#">io.k8s.api.core.v1.Capabilities</a> object	The capabilities to add/drop when running containers. Defaults to the default set of capabilities granted by the container runtime.
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Defaults to false.

Parameter	Type	Description
procMount	String	procMount denotes the type of proc mount to use for the containers. The default is DefaultProcMount which uses the container runtime defaults for readonly paths and masked paths. This requires the ProcMountType feature flag to be enabled.
readOnlyRootFilesystem	Boolean	Whether this container has a read-only root filesystem. Default is false.
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by this container. If seccomp options are provided at both the pod & container level, the container options override the pod options.

Parameter	Type	Description
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options from the PodSecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6943** io.k8s.api.core.v1.Capabilities

Parameter	Type	Description
add	Array of strings	Added capabilities
drop	Array of strings	Removed capabilities

**Table 5-6944** io.k8s.api.core.v1.Probe

Parameter	Type	Description
exec	<a href="#">io.k8s.api.core.v1.ExecAction</a> object	One and only one of the following should be specified. Exec specifies the action to take.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.
httpGet	<a href="#">io.k8s.api.core.v1.HTTPGetAction</a> object	HTTPGet specifies the http request to perform.
initialDelaySeconds	Integer	Number of seconds after the container has started before liveness probes are initiated. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness and startup. Minimum value is 1.

Parameter	Type	Description
tcpSocket	<a href="#">io.k8s.api.core.v1.TCPSocketAction</a> object	TCP socket specifies an action involving a TCP port. TCP hooks not yet supported
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1. More info: <a href="https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes">https://kubernetes.io/docs/concepts/workloads/pods/pod-lifecycle#container-probes</a>

**Table 5-6945** io.k8s.api.core.v1.ExecAction

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply exec'd, it is not run inside a shell, so traditional shell instructions (' ', etc) won't work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 5-6946** io.k8s.api.core.v1.HTTPGetAction

Parameter	Type	Description
host	String	Host name to connect to, defaults to the pod IP. You probably want to set "Host" in httpHeaders instead.
httpHeaders	Array of <a href="#">io.k8s.api.core.v1.HTTPHeader</a> objects	Custom headers to set in the request. HTTP allows repeated headers.
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 5-6947** io.k8s.api.core.v1.HTTPHeader

Parameter	Type	Description
name	String	The header field name
value	String	The header field value

**Table 5-6948** io.k8s.api.core.v1.TCPSocketAction

Parameter	Type	Description
host	String	Optional: Host name to connect to, defaults to the pod IP.
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 5-6949** io.k8s.api.core.v1.VolumeDevice

Parameter	Type	Description
devicePath	String	devicePath is the path inside of the container that the device will be mapped to.
name	String	name must match the name of a persistentVolumeClaim in the pod

**Table 5-6950** io.k8s.api.core.v1.VolumeMount

Parameter	Type	Description
extendPathMode	String	Extend the volume path by appending the pod metadata to the path according to specified pattern. which provide a way of directory isolation and help prevent the writing conflict between different pods.
mountPath	String	Path within the container at which the volume should be mounted. Must not contain '!'. Must not contain '..'.
mountPropagation	String	mountPropagation determines how mounts are propagated from the host to container and the other way around. When not set, MountPropagationNone is used. This field is beta in 1.10.
name	String	This must match the Name of a Volume.

Parameter	Type	Description
policy	<a href="#">io.k8s.api.core.v1.Policy</a> object	VolumeMount Policy.
readOnly	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Defaults to false.
subPath	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).
subPathExpr	String	Expanded path within the volume from which the container's volume should be mounted. Behaves similarly to SubPath but environment variable references \$(VAR_NAME) are expanded using the container's environment. Defaults to "" (volume's root). SubPathExpr and SubPath are mutually exclusive.

**Table 5-6951** io.k8s.api.core.v1.Policy

Parameter	Type	Description
logs	<a href="#">io.k8s.api.core.v1.Logs</a> object	Logs describes log Volume and its rotate strategy.

**Table 5-6952** io.k8s.api.core.v1.Logs

Parameter	Type	Description
annotations	Map<String,String>	Annotations for log.
rotate	String	Rotate strategy, including 'Daily' 'Hourly' 'Weekly'.

**Table 5-6953** io.k8s.api.core.v1.PodReadinessGate

Parameter	Type	Description
conditionType	String	ConditionType refers to a condition in the pod's condition list with matching type.

**Table 5-6954** io.k8s.api.core.v1.PodSecurityContext

Parameter	Type	Description
fsGroup	Long	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  1. The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw----  If unset, the Kubelet will not modify the ownership and permissions of any volume.
fsGroupChangePolicy	String	fsGroupChangePolicy defines behavior of changing ownership and permission of the volume before being exposed inside Pod. This field will only apply to volume types which support fsGroup based ownership (and permissions). It will have no effect on ephemeral volume types such as: secret, configmaps and emptydir. Valid values are "OnRootMismatch" and "Always". If not specified defaults to "Always".
runAsGroup	Long	The GID to run the entrypoint of the container process. Uses runtime default if unset. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	Long	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.

Parameter	Type	Description
seLinuxOptions	<a href="#">io.k8s.api.core.v1.SELinuxOptions</a> object	The SELinux context to be applied to all containers. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
seccompProfile	<a href="#">io.k8s.api.core.v1.SeccompProfile</a> object	The seccomp options to use by the containers in this pod.
supplementalGroups	Array of longs	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
sysctls	Array of <a href="#">io.k8s.api.core.v1.Sysctl</a> objects	Sysctls hold a list of namespaced sysctls used for the pod. Pods with unsupported sysctls (by the container runtime) might fail to launch.
windowsOptions	<a href="#">io.k8s.api.core.v1.WindowsSecurityContextOptions</a> object	The Windows specific settings applied to all containers. If unspecified, the options within a container's SecurityContext will be used. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6955** io.k8s.api.core.v1.SELinuxOptions

Parameter	Type	Description
level	String	Level is SELinux level label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
user	String	User is a SELinux user label that applies to the container.



**Table 5-6956** io.k8s.api.core.v1.SeccompProfile

Parameter	Type	Description
localhostProfile	String	localhostProfile indicates a profile defined in a file on the node should be used. The profile must be preconfigured on the node to work. Must be a descending path, relative to the kubelet's configured seccomp profile location. Must only be set if type is "Localhost".
type	String	type indicates which kind of seccomp profile will be applied. Valid options are: Localhost - a profile defined in a file on the node should be used. RuntimeDefault - the container runtime default profile should be used. Unconfined - no profile should be applied.

**Table 5-6957** io.k8s.api.core.v1.Sysctl

Parameter	Type	Description
name	String	Name of a property to set
value	String	Value of a property to set

**Table 5-6958** io.k8s.api.core.v1.WindowsSecurityContextOptions

Parameter	Type	Description
gmsaCredentialSpec	String	GMSACredentialSpec is where the GMSA admission webhook ( <a href="https://github.com/kubernetes-sigs/windows-gmsa">https://github.com/kubernetes-sigs/windows-gmsa</a> ) inlines the contents of the GMSA credential spec named by the GMSACredentialSpecName field.
gmsaCredentialSpecName	String	GMSACredentialSpecName is the name of the GMSA credential spec to use.
runAsUserName	String	The UserName in Windows to run the entrypoint of the container process. Defaults to the user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 5-6959** io.k8s.api.core.v1.Toleration

Parameter	Type	Description
effect	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	Long	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 5-6960** io.k8s.api.core.v1.TopologySpreadConstraint

Parameter	Type	Description
labelSelector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	LabelSelector is used to find matching pods. Pods that match this label selector are counted to determine the number of pods in their corresponding topology domain.

Parameter	Type	Description
maxSkew	Integer	MaxSkew describes the degree to which pods may be unevenly distributed. When <i>whenUnsatisfiable=DoNotSchedule</i> , it is the maximum permitted difference between the number of matching pods in the target topology and the global minimum. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 1/1/0:   zone1   zone2   zone3    P   P    - if MaxSkew is 1, incoming pod can only be scheduled to zone3 to become 1/1/1; scheduling it onto zone1(zone2) would make the ActualSkew(2-0) on zone1(zone2) violate MaxSkew(1). - if MaxSkew is 2, incoming pod can be scheduled onto any zone. When <i>whenUnsatisfiable=ScheduleAnyway</i> , it is used to give higher precedence to topologies that satisfy it. It's a required field. Default value is 1 and 0 is not allowed.
topologyKey	String	TopologyKey is the key of node labels. Nodes that have a label with this key and identical values are considered to be in the same topology. We consider each <key, value> as a "bucket", and try to put balanced number of pods into each bucket. It's a required field.
whenUnsatisfiable	String	WhenUnsatisfiable indicates how to deal with a pod if it doesn't satisfy the spread constraint. - DoNotSchedule (default) tells the scheduler not to schedule it. - ScheduleAnyway tells the scheduler to schedule the pod in any location, but giving higher precedence to topologies that would help reduce the skew. A constraint is considered "Unsatisfiable" for an incoming pod if and only if every possible node assignment for that pod would violate "MaxSkew" on some topology. For example, in a 3-zone cluster, MaxSkew is set to 1, and pods with the same labelSelector spread as 3/1/1:   zone1   zone2   zone3    P P P   P   P   If WhenUnsatisfiable is set to DoNotSchedule, incoming pod can only be scheduled to zone2(zone3) to become 3/2/1(3/1/2) as ActualSkew(2-1) on zone2(zone3) satisfies MaxSkew(1). In other words, the cluster can still be imbalanced, but scheduler won't make it <i>more</i> imbalanced. It's a required field.

**Table 5-6961** io.k8s.api.core.v1.Volume

Parameter	Type	Description
awsElasticBlockStore	<a href="#">io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource</a> object	AWSElasticBlockStore represents an AWS Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
azureDisk	<a href="#">io.k8s.api.core.v1.AzureDiskVolumeSource</a> object	AzureDisk represents an Azure Data Disk mount on the host and bind mount to the pod.
azureFile	<a href="#">io.k8s.api.core.v1.AzureFileVolumeSource</a> object	AzureFile represents an Azure File Service mount on the host and bind mount to the pod.
cephfs	<a href="#">io.k8s.api.core.v1.CephFSVolumeSource</a> object	CephFS represents a Ceph FS mount on the host that shares a pod's lifetime
cinder	<a href="#">io.k8s.api.core.v1.CinderVolumeSource</a> object	Cinder represents a cinder volume attached and mounted on kubelets host machine. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapVolumeSource</a> object	ConfigMap represents a configMap that should populate this volume
csi	<a href="#">io.k8s.api.core.v1.CSIVolumeSource</a> object	CSI (Container Storage Interface) represents ephemeral storage that is handled by certain external CSI drivers (Beta feature).
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIVolumeSource</a> object	DownwardAPI represents downward API about the pod that should populate this volume
emptyDir	<a href="#">io.k8s.api.core.v1.EmptyDirVolumeSource</a> object	EmptyDir represents a temporary directory that shares a pod's lifetime. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>

Parameter	Type	Description
ephemeral	<a href="#">io.k8s.api.core.v1.EphemeralVolumeSource</a> object	<p>Ephemeral represents a volume that is handled by a cluster storage driver (Alpha feature). The volume's lifecycle is tied to the pod that defines it - it will be created before the pod starts, and deleted when the pod is removed.</p> <p>Use this if: a) the volume is only needed while the pod runs, b) features of normal volumes like restoring from snapshot or capacity tracking are needed, c) the storage driver is specified through a storage class, and d) the storage driver supports dynamic volume provisioning through a PersistentVolumeClaim (see EphemeralVolumeSource for more information on the connection between this volume type and PersistentVolumeClaim).</p> <p>Use PersistentVolumeClaim or one of the vendor-specific APIs for volumes that persist for longer than the lifecycle of an individual pod.</p> <p>Use CSI for light-weight local ephemeral volumes if the CSI driver is meant to be used that way - see the documentation of the driver for more information.</p> <p>A pod can use both types of ephemeral volumes and persistent volumes at the same time.</p>
fc	<a href="#">io.k8s.api.core.v1.FCVolumeSource</a> object	FC represents a Fibre Channel resource that is attached to a kubelet's host machine and then exposed to the pod.
flexVolume	<a href="#">io.k8s.api.core.v1.FlexVolumeSource</a> object	FlexVolume represents a generic volume resource that is provisioned/attached using an exec based plugin.
flocker	<a href="#">io.k8s.api.core.v1.FlockerVolumeSource</a> object	Flocker represents a Flocker volume attached to a kubelet's host machine. This depends on the Flocker control service being running
gcePersistentDisk	<a href="#">io.k8s.api.core.v1.GCEPersistentDiskVolumeSource</a> object	GCEPersistentDisk represents a GCE Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
gitRepo	<a href="#">io.k8s.api.core.v1.GitRepoVolumeSource</a> object	GitRepo represents a git repository at a particular revision. DEPRECATED: GitRepo is deprecated. To provision a container with a git repo, mount an EmptyDir into an InitContainer that clones the repo using git, then mount the EmptyDir into the Pod's container.
glusterfs	<a href="#">io.k8s.api.core.v1.GlusterfsVolumeSource</a> object	Glusterfs represents a Glusterfs mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md">https://examples.k8s.io/volumes/glusterfs/README.md</a>
hostPath	<a href="#">io.k8s.api.core.v1.HostPathVolumeSource</a> object	HostPath represents a pre-existing file or directory on the host machine that is directly exposed to the container. This is generally used for system agents or other privileged things that are allowed to see the host machine. Most containers will NOT need this. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>
iscsi	<a href="#">io.k8s.api.core.v1.ISCSIVolumeSource</a> object	ISCSI represents an ISCSI Disk resource that is attached to a kubelet's host machine and then exposed to the pod. More info: <a href="https://examples.k8s.io/volumes/iscsi/README.md">https://examples.k8s.io/volumes/iscsi/README.md</a>
localDir	<a href="#">io.k8s.api.core.v1.LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
name	String	Volume's name. Must be a DNS_LABEL and unique within the pod. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
nfs	<a href="#">io.k8s.api.core.v1.NFSVolumeSource</a> object	NFS represents an NFS mount on the host that shares a pod's lifetime More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
persistentVolumeClaim	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource</a> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
photonPersistentDisk	<a href="#">io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource</a> object	PhotonPersistentDisk represents a PhotonController persistent disk attached and mounted on kubelets host machine

Parameter	Type	Description
portworxVolume	<a href="#">io.k8s.api.core.v1.PortworxVolumeSource</a> object	PortworxVolume represents a portworx volume attached and mounted on kubelets host machine
projected	<a href="#">io.k8s.api.core.v1.ProjectedVolumeSource</a> object	Items for all in one resources secrets, configmaps, and downward API
quobyte	<a href="#">io.k8s.api.core.v1.QuobyteVolumeSource</a> object	Quobyte represents a Quobyte mount on the host that shares a pod's lifetime
rbd	<a href="#">io.k8s.api.core.v1.RBDVolumeSource</a> object	RBD represents a Rados Block Device mount on the host that shares a pod's lifetime. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md">https://examples.k8s.io/volumes/rbd/README.md</a>
scaleIO	<a href="#">io.k8s.api.core.v1.ScaleIOVolumeSource</a> object	ScaleIO represents a ScaleIO persistent volume attached and mounted on Kubernetes nodes.
secret	<a href="#">io.k8s.api.core.v1.SecretVolumeSource</a> object	Secret represents a secret that should populate this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>
storageos	<a href="#">io.k8s.api.core.v1.StorageOSVolumeSource</a> object	StorageOS represents a StorageOS volume attached and mounted on Kubernetes nodes.
vsphereVolume	<a href="#">io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource</a> object	VsphereVolume represents a vSphere volume attached and mounted on kubelets host machine

**Table 5-6962** io.k8s.api.core.v1.AWSElasticBlockStoreVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty).
readOnly	Boolean	Specify "true" to force and set the ReadOnly property in VolumeMounts to "true". If omitted, the default is "false". More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>
volumeID	String	Unique ID of the persistent disk resource in AWS (Amazon EBS volume). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore">https://kubernetes.io/docs/concepts/storage/volumes#awselasticblockstore</a>

**Table 5-6963** io.k8s.api.core.v1.AzureDiskVolumeSource

Parameter	Type	Description
cachingMode	String	Host Caching mode: None, Read Only, Read Write.
diskName	String	The Name of the data disk in the blob storage
diskURI	String	The URI the data disk in the blob storage
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
kind	String	Expected values Shared: multiple blob disks per storage account Dedicated: single blob disk per storage account Managed: azure managed data disk (only in managed availability set). defaults to shared



Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.

**Table 5-6964** io.k8s.api.core.v1.AzureFileVolumeSource

Parameter	Type	Description
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretName	String	the name of secret that contains Azure Storage Account Name and Key
shareName	String	Share Name

**Table 5-6965** io.k8s.api.core.v1.CephFSVolumeSource

Parameter	Type	Description
monitors	Array of strings	Required: Monitors is a collection of Ceph monitors More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
path	String	Optional: Used as the mounted root, rather than the full Ceph tree, default is /
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretFile	String	Optional: SecretFile is the path to key ring for User, default is /etc/ceph/user.secret More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the authentication secret for User, default is empty. More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>
user	String	Optional: User is the rados user name, default is admin More info: <a href="https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it">https://examples.k8s.io/volumes/cephfs/README.md#how-to-use-it</a>

**Table 5-6966** io.k8s.api.core.v1.CinderVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: points to a secret object containing parameters used to connect to OpenStack.
volumeID	String	volume id used to identify the volume in cinder. More info: <a href="https://examples.k8s.io/mysql-cinder-pd/README.md">https://examples.k8s.io/mysql-cinder-pd/README.md</a>

**Table 5-6967** io.k8s.api.core.v1.ConfigMapVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.

Parameter	Type	Description
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6968** io.k8s.api.core.v1.CSIVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the CSI driver that handles this volume. Consult with your admin for the correct name as registered in the cluster.
fsType	String	Filesystem type to mount. Ex. "ext4", "xfs", "ntfs". If not provided, the empty value is passed to the associated CSI driver which will determine the default filesystem to apply.
nodePublishSecretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	NodePublishSecretRef is a reference to the secret object containing sensitive information to pass to the CSI driver to complete the CSI NodePublishVolume and NodeUnpublishVolume calls. This field is optional, and may be empty if no secret is required. If the secret object contains more than one secret, all secret references are passed.
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).
volumeAttributes	Map<String,String>	VolumeAttributes stores driver-specific properties that are passed to the CSI driver. Consult your driver's documentation for supported values.

**Table 5-6969** io.k8s.api.core.v1.DownwardAPIVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits to use on created files by default. Must be a Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of downward API volume file

**Table 5-6970** io.k8s.api.core.v1.EmptyDirVolumeSource

Parameter	Type	Description
medium	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#emptydir">https://kubernetes.io/docs/concepts/storage/volumes#emptydir</a>
sizeLimit	String	Total amount of local storage required for this EmptyDir volume. The size limit is also applicable for memory medium. The maximum usage on memory medium EmptyDir would be the minimum value between the SizeLimit specified here and the sum of memory limits of all containers in a pod. The default is nil which means that the limit is undefined. More info: <a href="http://kubernetes.io/docs/user-guide/volumes#emptydir">http://kubernetes.io/docs/user-guide/volumes#emptydir</a>

**Table 5-6971** io.k8s.api.core.v1.EphemeralVolumeSource

Parameter	Type	Description
readOnly	Boolean	Specifies a read-only configuration for the volume. Defaults to false (read/write).

Parameter	Type	Description
volumeClaimTemplate	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimTemplate</a> object	<p>Will be used to create a stand-alone PVC to provision the volume. The pod in which this EphemeralVolumeSource is embedded will be the owner of the PVC, i.e. the PVC will be deleted together with the pod. The name of the PVC will be <i>&lt;pod name&gt;-&lt;volume name&gt;</i> where <i>&lt;volume name&gt;</i> is the name from the <i>PodSpec.Volumes</i> array entry. Pod validation will reject the pod if the concatenated name is not valid for a PVC (for example, too long).</p> <p>An existing PVC with that name that is not owned by the pod will <i>not</i> be used for the pod to avoid using an unrelated volume by mistake. Starting the pod is then blocked until the unrelated PVC is removed. If such a pre-created PVC is meant to be used by the pod, the PVC has to updated with an owner reference to the pod once the pod exists. Normally this should not be necessary, but it may be useful when manually reconstructing a broken cluster.</p> <p>This field is read-only and no changes will be made by Kubernetes to the PVC after it has been created.</p> <p>Required, must not be nil.</p>

**Table 5-6972** io.k8s.api.core.v1.PersistentVolumeClaimTemplate

Parameter	Type	Description
metadata	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta</a> object	May contain labels and annotations that will be copied into the PVC when creating it. No other fields are allowed and will be rejected during validation.
spec	<a href="#">io.k8s.api.core.v1.PersistentVolumeClaimSpec</a> object	The specification for the PersistentVolumeClaim. The entire content is copied unchanged into the PVC that gets created from this template. The same fields as in a PersistentVolumeClaim are also valid here.

**Table 5-6973** io.k8s.apimachinery.pkg.apis.meta.v1.ObjectMeta

Parameter	Type	Description
annotations	Map<String,String>	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects. More info: <a href="http://kubernetes.io/docs/user-guide/annotations">http://kubernetes.io/docs/user-guide/annotations</a>
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC.  Populated by the system. Read-only. Null for lists. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a>
deletionGracePeriodSeconds	Long	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.

Parameter	Type	Description
deletionTimestamp	String	<p>DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource is expected to be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field, once the finalizers list is empty. As long as the finalizers list contains items, deletion is blocked. Once the deletionTimestamp is set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. After that 30 seconds, the Kubelet will send a hard termination signal (SIGKILL) to the container and after cleanup, remove the pod from the API. In the presence of network partitions, this object may still exist after this timestamp, until an administrator or automated process can determine the resource is fully terminated. If not set, graceful deletion of the object has not been requested.</p> <p>Populated by the system when a graceful deletion is requested. Read-only. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#metadata</a></p>

Parameter	Type	Description
finalizers	Array of strings	<p>Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed. Finalizers may be processed and removed in any order. Order is NOT enforced because it introduces significant risk of stuck finalizers. finalizers is a shared field, any actor with permission can reorder it. If the finalizer list is processed in order, then this can lead to a situation in which the component responsible for the first finalizer in the list is waiting for a signal (field value, external system, or other) produced by a component responsible for a finalizer later in the list, resulting in a deadlock. Without enforced ordering finalizers are free to order amongst themselves and are not vulnerable to ordering changes in the list.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different than the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#idempotency</a></p>
generation	Long	<p>A sequence number representing a specific generation of the desired state. Populated by the system. Read-only.</p>



Parameter	Type	Description
labels	Map<String,String>	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services. More info: <a href="http://kubernetes.io/docs/user-guide/labels">http://kubernetes.io/docs/user-guide/labels</a>
managedFields	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry</a> objects	ManagedFields maps workflow-id and version to the set of fields that are managed by that workflow. This is mostly for internal housekeeping, and users typically shouldn't need to set or understand this field. A workflow can be the user's name, a controller's name, or the name of a specific apply path like "ci-cd". The set of fields is always in the version that the workflow used when modifying the object.
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
namespace	String	Namespace defines the space within which each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty.  Must be a DNS_LABEL. Cannot be updated. More info: <a href="http://kubernetes.io/docs/user-guide/namespaces">http://kubernetes.io/docs/user-guide/namespaces</a>
ownerReferences	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference</a> objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.

Parameter	Type	Description
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources.  Populated by the system. Read-only. Value must be treated as opaque by clients and . More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#concurrency-control-and-consistency</a>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.  DEPRECATED Kubernetes will stop propagating this field in 1.20 release and the field is planned to be removed in 1.21 release.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations.  Populated by the system. Read-only. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-6974** io.k8s.apimachinery.pkg.apis.meta.v1.ManagedFieldsEntry

Parameter	Type	Description
apiVersion	String	APIVersion defines the version of this resource that this field set applies to. The format is "group/version" just like the top-level APIVersion field. It is necessary to track the version of a field set because it cannot be automatically converted.
fieldsType	String	FieldsType is the discriminator for the different fields format and version. There is currently only one possible value: "FieldsV1"
fieldsV1	Object	FieldsV1 holds the first JSON version format as described in the "FieldsV1" type.

Parameter	Type	Description
manager	String	Manager is an identifier of the workflow managing these fields.
operation	String	Operation is the type of operation which lead to this ManagedFieldsEntry being created. The only valid values for this field are 'Apply' and 'Update'.
time	String	Time is timestamp of when these fields were set. It should always be empty if Operation is 'Apply'

**Table 5-6975** io.k8s.apimachinery.pkg.apis.meta.v1.OwnerReference

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
controller	Boolean	If true, this reference points to the managing controller.
kind	String	Kind of the referent. More info: <a href="https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/sig-architecture/api-conventions.md#types-kinds</a>
name	String	Name of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#names">http://kubernetes.io/docs/user-guide/identifiers#names</a>
uid	String	UID of the referent. More info: <a href="http://kubernetes.io/docs/user-guide/identifiers#uids">http://kubernetes.io/docs/user-guide/identifiers#uids</a>

**Table 5-6976** io.k8s.api.core.v1.PersistentVolumeClaimSpec

Parameter	Type	Description
accessModes	Array of strings	AccessModes contains the desired access modes the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#access-modes-1</a>

Parameter	Type	Description
dataSource	<a href="#">io.k8s.api.core.v1.TypedLocalObjectReference</a> object	This field can be used to specify either: * An existing VolumeSnapshot object (snapshot.storage.k8s.io/VolumeSnapshot - Beta) * An existing PVC (PersistentVolumeClaim) * An existing custom resource/object that implements data population (Alpha) In order to use VolumeSnapshot object types, the appropriate feature gate must be enabled (VolumeSnapshotDataSource or AnyVolumeDataSource) If the provisioner or an external controller can support the specified data source, it will create a new volume based on the contents of the specified data source. If the specified data source is not supported, the volume will not be created and the failure will be reported as an event. In the future, we plan to support more data source types and the behavior of the provisioner may change.
resources	<a href="#">io.k8s.api.core.v1.ResourceRequirements</a> object	Resources represents the minimum resources the volume should have. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources">https://kubernetes.io/docs/concepts/storage/persistent-volumes#resources</a>
selector	<a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	String	Name of the StorageClass required by the claim. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1">https://kubernetes.io/docs/concepts/storage/persistent-volumes#class-1</a>
volumeMode	String	volumeMode defines what type of volume is required by the claim. Value of Filesystem is implied when not included in claim spec.
volumeName	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

**Table 5-6977** io.k8s.api.core.v1.TypedLocalObjectReference

Parameter	Type	Description
apiGroup	String	APIGroup is the group for the resource being referenced. If APIGroup is not specified, the specified Kind must be in the core API group. For any other third-party types, APIGroup is required.

Parameter	Type	Description
kind	String	Kind is the type of resource being referenced
name	String	Name is the name of resource being referenced

**Table 5-6978** io.k8s.api.core.v1.ResourceRequirements

Parameter	Type	Description
limits	Map<String,String>	Limits describes the maximum amount of compute resources allowed. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>
requests	Map<String,String>	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value. More info: <a href="https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/">https://kubernetes.io/docs/concepts/configuration/manage-compute-resources-container/</a>

**Table 5-6979** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelector

Parameter	Type	Description
matchExpressions	Array of <a href="#">io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	Map<String,String>	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 5-6980** io.k8s.apimachinery.pkg.apis.meta.v1.LabelSelectorRequirement

Parameter	Type	Description
key	String	key is the label key that the selector applies to.

Parameter	Type	Description
operator	String	operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	Array of strings	values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 5-6981** io.k8s.api.core.v1.FCVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
lun	Integer	Optional: FC target lun number
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
targetWWNs	Array of strings	Optional: FC target worldwide names (WWNs)
wwids	Array of strings	Optional: FC volume world wide identifiers (wwids) Either wwids or combination of targetWWNs and lun must be set, but not both simultaneously.

**Table 5-6982** io.k8s.api.core.v1.FlexVolumeSource

Parameter	Type	Description
driver	String	Driver is the name of the driver to use for this volume.
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". The default filesystem depends on FlexVolume script.
options	Map<String,String>	Optional: Extra command options if any.

Parameter	Type	Description
readOnly	Boolean	Optional: Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	Optional: SecretRef is reference to the secret object containing sensitive information to pass to the plugin scripts. This may be empty if no secret object is specified. If the secret object contains more than one secret, all secrets are passed to the plugin scripts.

**Table 5-6983** io.k8s.api.core.v1.FlockerVolumeSource

Parameter	Type	Description
datasetName	String	Name of the dataset stored as metadata -> name on the dataset for Flocker should be considered as deprecated
datasetUUID	String	UUID of the dataset. This is unique identifier of a Flocker dataset

**Table 5-6984** io.k8s.api.core.v1.GCEPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
partition	Integer	The partition in the volume that you want to mount. If omitted, the default is to mount by volume name. Examples: For volume /dev/sda1, you specify the partition as "1". Similarly, the volume partition for /dev/sda is "0" (or you can leave the property empty). More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>
pdName	String	Unique name of the PD resource in GCE. Used to identify the disk in GCE. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

Parameter	Type	Description
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk">https://kubernetes.io/docs/concepts/storage/volumes#gcepersistentdisk</a>

**Table 5-6985** io.k8s.api.core.v1.GitRepoVolumeSource

Parameter	Type	Description
directory	String	Target directory name. Must not contain or start with '..'. If '.' is supplied, the volume directory will be the git repository. Otherwise, if specified, the volume will contain the git repository in the subdirectory with the given name.
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 5-6986** io.k8s.api.core.v1.GlusterfsVolumeSource

Parameter	Type	Description
endpoints	String	EndpointsName is the endpoint name that details Glusterfs topology. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
path	String	Path is the Glusterfs volume path. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>
readOnly	Boolean	ReadOnly here will force the Glusterfs volume to be mounted with read-only permissions. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod">https://examples.k8s.io/volumes/glusterfs/README.md#create-a-pod</a>

**Table 5-6987** io.k8s.api.core.v1.HostPathVolumeSource

Parameter	Type	Description
path	String	Path of the directory on the host. If the path is a symlink, it will follow the link to the real path. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>



Parameter	Type	Description
type	String	Type for HostPath Volume Defaults to "" More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#hostpath">https://kubernetes.io/docs/concepts/storage/volumes#hostpath</a>

**Table 5-6988** io.k8s.api.core.v1.ISCSIVolumeSource

Parameter	Type	Description
chapAuthDiscovery	Boolean	whether support iSCSI Discovery CHAP authentication
chapAuthSession	Boolean	whether support iSCSI Session CHAP authentication
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#iscsi">https://kubernetes.io/docs/concepts/storage/volumes#iscsi</a>
initiatorName	String	Custom iSCSI Initiator Name. If initiatorName is specified with iscsiInterface simultaneously, new iSCSI interface : will be created for the connection.
iqn	String	Target iSCSI Qualified Name.
iscsiInterface	String	iSCSI Interface Name that uses an iSCSI transport. Defaults to 'default' (tcp).
lun	Integer	iSCSI Target Lun number.
portals	Array of strings	iSCSI Target Portal List. The portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	CHAP Secret for iSCSI target and initiator authentication
targetPortal	String	iSCSI Target Portal. The Portal is either an IP or ip_addr:port if the port is other than default (typically TCP ports 860 and 3260).

**Table 5-6989** io.k8s.api.core.v1.LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	String	<p>Quantity is a fixed-point representation of a number. It provides convenient marshaling/unmarshaling in JSON and YAML, in addition to String() and AsInt64() accessors.</p> <p>The serialization format is:</p> <p>::= (Note that may be empty, from the "" case in .) ::= 0   1   ...   9 ::=   ::=   .   .   . ::= "+"   "-" ::=   ::=     ::= Ki   Mi   Gi   Ti   Pi   Ei (International System of units; See: <a href="http://physics.nist.gov/cuu/Units/binary.html">http://physics.nist.gov/cuu/Units/binary.html</a>) ::= m   ""   k   M   G   T   P   E (Note that 1024 = 1Ki but 1000 = 1k; I didn't choose the capitalization.) ::= "e"   "E"</p> <p>No matter which of the three exponent forms is used, no quantity may represent a number greater than 2<sup>63</sup>-1 in magnitude, nor may it have more than 3 decimal places. Numbers larger or more precise will be capped or rounded up. (E.g.: 0.1m will rounded up to 1m.) This may be extended in the future if we require larger or smaller quantities.</p> <p>When a Quantity is parsed from a string, it will remember the type of suffix it had, and will use the same type again when it is serialized.</p> <p>Before serializing, Quantity will be put in "canonical form". This means that Exponent/suffix will be adjusted up or down (with a corresponding increase or decrease in Mantissa) such that: a. No precision is lost b. No fractional digits will be emitted c. The exponent (or suffix) is as large as possible. The sign will be omitted unless the number is negative.</p> <p>Examples: 1.5 will be serialized as "1500m" 1.5Gi will be serialized as "1536Mi"</p> <p>Note that the quantity will NEVER be internally represented by a floating point number. That is the whole point of this exercise.</p> <p>Non-canonical values will still parse as long as they are well formed, but will be re-emitted in their canonical form. (So always use canonical form, or don't diff.)</p> <p>This format is intended to make it difficult to use these numbers without writing some sort of special handling code in the hopes that that</p>

Parameter	Type	Description
		will cause implementors to also use a fixed point implementation.

**Table 5-6990** io.k8s.api.core.v1.NFSVolumeSource

Parameter	Type	Description
path	String	Path that is exported by the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
readOnly	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>
server	String	Server is the hostname or IP address of the NFS server. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#nfs">https://kubernetes.io/docs/concepts/storage/volumes#nfs</a>

**Table 5-6991** io.k8s.api.core.v1.PersistentVolumeClaimVolumeSource

Parameter	Type	Description
claimName	String	ClaimName is the name of a PersistentVolumeClaim in the same namespace as the pod using this volume. More info: <a href="https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims">https://kubernetes.io/docs/concepts/storage/persistent-volumes#persistentvolumeclaims</a>
readOnly	Boolean	Will force the ReadOnly setting in VolumeMounts. Default false.

**Table 5-6992** io.k8s.api.core.v1.PhotonPersistentDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
pdID	String	ID that identifies Photon Controller persistent disk

**Table 5-6993** io.k8s.api.core.v1.PortworxVolumeSource

Parameter	Type	Description
fsType	String	FSType represents the filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
volumeID	String	VolumeID uniquely identifies a Portworx volume

**Table 5-6994** io.k8s.api.core.v1.ProjectedVolumeSource

Parameter	Type	Description
defaultMode	Integer	Mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
sources	Array of <a href="#">io.k8s.api.core.v1.VolumeProjection</a> objects	list of volume projections

**Table 5-6995** io.k8s.api.core.v1.VolumeProjection

Parameter	Type	Description
configMap	<a href="#">io.k8s.api.core.v1.ConfigMapProjection</a> object	information about the configMap data to project
downwardAPI	<a href="#">io.k8s.api.core.v1.DownwardAPIProjection</a> object	information about the downwardAPI data to project

Parameter	Type	Description
secret	<a href="#">io.k8s.api.core.v1.SecretProjection</a> object	information about the secret data to project
serviceAccountToken	<a href="#">io.k8s.api.core.v1.ServiceAccountTokenProjection</a> object	information about the serviceAccountToken data to project

**Table 5-6996** io.k8s.api.core.v1.ConfigMapProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced ConfigMap will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the ConfigMap, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the ConfigMap or its keys must be defined

**Table 5-6997** io.k8s.api.core.v1.DownwardAPIProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.DownwardAPIVolumeFile</a> objects	Items is a list of DownwardAPIVolume file

**Table 5-6998** io.k8s.api.core.v1.DownwardAPIVolumeFile

Parameter	Type	Description
fieldRef	<a href="#">io.k8s.api.core.v1.ObjectFieldSelector</a> object	Required: Selects a field of the pod: only annotations, labels, name and namespace are supported.
mode	Integer	Optional: mode bits used to set permissions on this file, must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
resourceFieldRef	<a href="#">io.k8s.api.core.v1.ResourceFieldSelector</a> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 5-6999** io.k8s.api.core.v1.ObjectFieldSelector

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1".
fieldPath	String	Path of the field to select in the specified API version.

**Table 5-7000** io.k8s.api.core.v1.ResourceFieldSelector

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars
divisor	String	Specifies the output format of the exposed resources, defaults to "1"
resource	String	Required: resource to select

**Table 5-7001** io.k8s.api.core.v1.SecretProjection

Parameter	Type	Description
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
name	String	Name of the referent. More info: <a href="https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names">https://kubernetes.io/docs/concepts/overview/working-with-objects/names/#names</a>
optional	Boolean	Specify whether the Secret or its key must be defined

**Table 5-7002** io.k8s.api.core.v1.ServiceAccountTokenProjection

Parameter	Type	Description
audience	String	Audience is the intended audience of the token. A recipient of a token must identify itself with an identifier specified in the audience of the token, and otherwise should reject the token. The audience defaults to the identifier of the apiserver.
expirationSeconds	Long	ExpirationSeconds is the requested duration of validity of the service account token. As the token approaches expiration, the kubelet volume plugin will proactively rotate the service account token. The kubelet will start trying to rotate the token if the token is older than 80 percent of its time to live or if the token is older than 24 hours. Defaults to 1 hour and must be at least 10 minutes.
path	String	Path is the path relative to the mount point of the file to project the token into.

**Table 5-7003** io.k8s.api.core.v1.QuobyteVolumeSource

Parameter	Type	Description
group	String	Group to map volume access to Default is no group
readOnly	Boolean	ReadOnly here will force the Quobyte volume to be mounted with read-only permissions. Defaults to false.
registry	String	Registry represents a single or multiple Quobyte Registry services specified as a string as host:port pair (multiple entries are separated with commas) which acts as the central registry for volumes
tenant	String	Tenant owning the given Quobyte volume in the Backend Used with dynamically provisioned Quobyte volumes, value is set by the plugin
user	String	User to map volume access to Defaults to serviceaccount user
volume	String	Volume is a string that references an already created Quobyte volume by name.

**Table 5-7004** io.k8s.api.core.v1.RBDVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type of the volume that you want to mount. Tip: Ensure that the filesystem type is supported by the host operating system. Examples: "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#rbd">https://kubernetes.io/docs/concepts/storage/volumes#rbd</a>
image	String	The rados image name. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
keyring	String	Keyring is the path to key ring for RBDUser. Default is /etc/ceph/keyring. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
monitors	Array of strings	A collection of Ceph monitors. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>



Parameter	Type	Description
pool	String	The rados pool name. Default is rbd. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
readOnly	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Defaults to false. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef is name of the authentication secret for RBDUser. If provided overrides keyring. Default is nil. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>
user	String	The rados user name. Default is admin. More info: <a href="https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it">https://examples.k8s.io/volumes/rbd/README.md#how-to-use-it</a>

**Table 5-7005** io.k8s.api.core.v1.ScaleIOVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Default is "xfs".
gateway	String	The host address of the ScaleIO API Gateway.
protectionDomain	String	The name of the ScaleIO Protection Domain for the configured storage.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef references to the secret for ScaleIO user and other sensitive information. If this is not provided, Login operation will fail.
sslEnabled	Boolean	Flag to enable/disable SSL communication with Gateway, default false
storageMode	String	Indicates whether the storage for a volume should be ThickProvisioned or ThinProvisioned. Default is ThinProvisioned.
storagePool	String	The ScaleIO Storage Pool associated with the protection domain.

Parameter	Type	Description
system	String	The name of the storage system as configured in ScaleIO.
volumeName	String	The name of a volume already created in the ScaleIO system that is associated with this volume source.

**Table 5-7006** io.k8s.api.core.v1.SecretVolumeSource

Parameter	Type	Description
defaultMode	Integer	Optional: mode bits used to set permissions on created files by default. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
items	Array of <a href="#">io.k8s.api.core.v1.KeyToPath</a> objects	If unspecified, each key-value pair in the Data field of the referenced Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error unless it is marked optional. Paths must be relative and may not contain the '..' path or start with '..'.
optional	Boolean	Specify whether the Secret or its keys must be defined
secretName	String	Name of the secret in the pod's namespace to use. More info: <a href="https://kubernetes.io/docs/concepts/storage/volumes#secret">https://kubernetes.io/docs/concepts/storage/volumes#secret</a>

**Table 5-7007** io.k8s.api.core.v1.KeyToPath

Parameter	Type	Description
key	String	The key to project.

Parameter	Type	Description
mode	Integer	Optional: mode bits used to set permissions on this file. Must be an octal value between 0000 and 0777 or a decimal value between 0 and 511. YAML accepts both octal and decimal values, JSON requires decimal values for mode bits. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
path	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.

**Table 5-7008** io.k8s.api.core.v1.StorageOSVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
readOnly	Boolean	Defaults to false (read/write). ReadOnly here will force the ReadOnly setting in VolumeMounts.
secretRef	<a href="#">io.k8s.api.core.v1.LocalObjectReference</a> object	SecretRef specifies the secret to use for obtaining the StorageOS API credentials. If not specified, default values will be attempted.
volumeName	String	VolumeName is the human-readable name of the StorageOS volume. Volume names are only unique within a namespace.
volumeNamespace	String	VolumeNamespace specifies the scope of the volume within StorageOS. If no namespace is specified then the Pod's namespace will be used. This allows the Kubernetes name scoping to be mirrored within StorageOS for tighter integration. Set VolumeName to any name to override the default behaviour. Set to "default" if you are not using namespaces within StorageOS. Namespaces that do not pre-exist within StorageOS will be created.

**Table 5-7009** io.k8s.api.core.v1.VsphereVirtualDiskVolumeSource

Parameter	Type	Description
fsType	String	Filesystem type to mount. Must be a filesystem type supported by the host operating system. Ex. "ext4", "xfs", "ntfs". Implicitly inferred to be "ext4" if unspecified.
storagePolicyID	String	Storage Policy Based Management (SPBM) profile ID associated with the StoragePolicyName.
storagePolicyName	String	Storage Policy Based Management (SPBM) profile name.
volumePath	String	Path that identifies vSphere volume vmdk

**Table 5-7010** io.k8s.api.apps.v1.ReplicaSetStatus

Parameter	Type	Description
availableReplicas	Integer	The number of available replicas (ready for at least minReadySeconds) for this replica set.
conditions	Array of <a href="#">io.k8s.api.apps.v1.ReplicaSetCondition</a> objects	Represents the latest available observations of a replica set's current state.
fullyLabeledReplicas	Integer	The number of pods that have labels matching the labels of the pod template of the replicaset.
observedGeneration	Long	ObservedGeneration reflects the generation of the most recently observed ReplicaSet.
readyReplicas	Integer	The number of ready replicas for this replica set.
replicas	Integer	Replicas is the most recently observed number of replicas. More info: <a href="https://kubernetes.io/docs/concepts/workloads/controllers/replicationcontroller/#what-is-a-replicationcontroller">https://kubernetes.io/docs/concepts/workloads/controllers/replicationcontroller/#what-is-a-replicationcontroller</a>

**Table 5-7011** io.k8s.api.apps.v1.ReplicaSetCondition

Parameter	Type	Description
lastTransitionTime	String	The last time the condition transitioned from one status to another.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of replica set condition.

## Example Requests

None

## Example Responses

**Status code: 200**

OK

```
{
  "apiVersion": "apps/v1",
  "kind": "ReplicaSet",
  "metadata": {
    "annotations": {
      "deployment.kubernetes.io/desired-replicas": "2",
      "deployment.kubernetes.io/max-replicas": "2",
      "deployment.kubernetes.io/revision": "1"
    },
    "creationTimestamp": "2022-09-06T07:42:15Z",
    "generation": 1,
    "labels": {
      "app": "deployment-test",
      "pod-template-hash": "86cc979d6d"
    },
    "name": "replicaset-test",
    "namespace": "namespace-test",
    "ownerReferences": [ {
      "apiVersion": "apps/v1",
      "blockOwnerDeletion": true,
      "controller": true,
      "kind": "Deployment",
      "name": "deployment-test",
      "uid": "1e5c7f22-36b3-4a1d-868e-5fc10a98f332"
    } ],
    "resourceVersion": "41587974",
    "selfLink": "/apis/apps/v1/namespaces/namespace-test/replicasets/replicaset-test",
    "uid": "03037364-044e-43ca-bc68-06d07ab0d609"
  },
  "spec": {
    "replicas": 2,
    "selector": {
      "matchLabels": {
        "app": "deployment-test",
        "pod-template-hash": "86cc979d6d"
      }
    }
  }
}
```

```

    }
  },
  "template": {
    "metadata": {
      "annotations": {
        "cri.cci.io/container-type": "secure-container",
        "log.stdoutcollection.kubernetes.io": "{\"collectionContainers\": [\"container-0\"]}",
        "metrics.alpha.kubernetes.io/custom-endpoints": "[{api: \"\", path: \"\", port: \"\", names: \"\"}]"
      },
      "creationTimestamp": null,
      "labels": {
        "app": "deployment-test",
        "pod-template-hash": "86cc979d6d"
      }
    },
    "spec": {
      "containers": [ {
        "image": "redis",
        "imagePullPolicy": "IfNotPresent",
        "lifecycle": { },
        "name": "container-0",
        "resources": {
          "limits": {
            "cpu": "500m",
            "memory": "1Gi"
          },
          "requests": {
            "cpu": "500m",
            "memory": "1Gi"
          }
        },
        "terminationMessagePath": "/dev/termination-log",
        "terminationMessagePolicy": "File"
      } ],
      "dnsConfig": { },
      "dnsPolicy": "ClusterFirst",
      "imagePullSecrets": [ {
        "name": "imagepull-secret"
      } ],
      "restartPolicy": "Always",
      "schedulerName": "default-scheduler",
      "securityContext": { },
      "terminationGracePeriodSeconds": 30
    }
  },
  "status": {
    "availableReplicas": 2,
    "fullyLabeledReplicas": 2,
    "observedGeneration": 1,
    "readyReplicas": 2,
    "replicas": 2
  }
}

```

## Status Codes

Status Code	Description
200	OK
400	BadRequest
401	Unauthorized

Status Code	Description
403	Forbidden
404	NotFound
405	MethodNotAllowed
406	NotAcceptable
409	Conflict
415	UnsupportedMediaType
422	Invalid
429	TooManyRequests
500	InternalServerError
503	ServiceUnavailable
504	ServerTimeout

# 6 Data Structure

This chapter describes the common parameters used by the APIs.

[6.1 Request Data Structure \(Discarded\)](#)

[6.2 Response Data Structure \(Discarded\)](#)

[6.3 Data Structure](#)

## 6.1 Request Data Structure (Discarded)

**Table 6-1** Data structure of v1.PodTemplate

Parameter	Mandatory	Type	Description
kind	Yes	String	A string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. The value of this parameter is <b>PodTemplate</b> .
apiVersion	Yes	String	Versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. The value of this parameter is <b>v1</b> .
metadata	Yes	<a href="#">metadata</a> object	-



Parameter	Mandatory	Type	Description
template	Yes	<b>template</b> object	-

**Table 6-2** Request parameters of v1.Pod

Parameter	Mandatory	Type	Description
kind	Yes	String	A string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.  The value of this parameter is <b>Pod</b> .
apiVersion	Yes	String	Versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.  The value of this parameter is <b>v1</b> .
metadata	Yes	<b>metadata</b> object	-
spec	Yes	<b>spec</b> object	-
status	No	<b>status</b> object	-

**Table 6-3** Data structure of the status field

Parameter	Mandatory	Type	Description
phase	No	String	Current condition of the pod.
conditions	No	<b>conditions</b> object	Current service state of the pod.
message	No	String	A human readable message indicating details about why the pod is in this condition.

Parameter	Mandatory	Type	Description
reason	No	String	A brief CamelCase message indicating details about why the pod is in this state. e.g. 'OutOfDisk'
hostIP	No	String	IP address of the host to which the pod is assigned. Empty if not yet scheduled.
podIP	No	String	IP address allocated to the pod. Routable at least within the cluster. Empty if not yet allocated.
startTime	No	String	RFC 3339 date and time at which the object was acknowledged by the Kubelet. This is before the Kubelet pulled the container image(s) for the pod.
containerStatuses	No	<a href="#">containerStatuses</a> object	The list has one entry per container in the manifest. Each entry is currently the output of container inspect.

**Table 6-4** Data structure of the conditions field

Parameter	Mandatory	Type	Description
type	No	String	Type of the condition. Currently only Ready.
status	No	String	Status of the condition. Can be True, False, or Unknown.
lastProbeTime	No	String	Last time we probed the condition.
lastTransitionTime	No	String	Last time the condition transitioned from one status to another.
reason	No	String	Unique, one-word, CamelCase reason for the condition's last transition.
message	No	String	Human-readable message indicating details about last transition.

**Table 6-5** Data structure of the containerStatuses field

Parameter	Mandatory	Type	Description
name	Yes	String	This must be a DNS_LABEL. Each container in a pod must have a unique name. Cannot be updated.
state	No	<a href="#">state/lastState</a> object	-
lastState	No	<a href="#">state/lastState</a> object	-
ready	No	Boolean	Specifies whether the container has passed its readiness probe.
restartCount	No	Integer	The number of times the container has been restarted, currently based on the number of dead containers that have not yet been removed. Note that this is calculated from dead containers. However, those containers are subject to garbage collection. This value will get capped at 5 by GC.
image	Yes	String	The image the container is running.
imageID	No	String	ID of the container's image.
containerID	No	String	Container's ID in the format 'docker://'.

**Table 6-6** Data structure of the state or lastState field

Parameter	Mandatory	Type	Description
waiting	No	<a href="#">waiting</a> object	-
running	No	<a href="#">running</a> object	-
terminated	No	<a href="#">terminated</a> object	-

**Table 6-7** Data structure of the waiting field

Parameter	Mandatory	Type	Description
reason	No	String	(Brief) Reason the container is not yet running.
message	No	String	Message regarding why the container is not yet running.

**Table 6-8** Data structure of the running field

Parameter	Mandatory	Type	Description
startedAt	No	String	Time at which the container was last (re-)started.

**Table 6-9** Data structure of the terminated field

Parameter	Mandatory	Type	Description
startedAt	No	Integer	Exit status from the last termination of the container.
signal	No	Integer	Signal from the last termination of the container.
reason	No	String	(Brief) reason from the last termination of the container.
message	No	String	Message regarding the last termination of the container.
startedAt	No	String	Time at which previous execution of the container started.
finishedAt	No	String	Time at which the container last terminated.
containerID	No	String	Container's ID in the format 'docker://'

**Table 6-10** Data structure of the metadata field

Parameter	Mandatory	Type	Description
name	Yes	String	<p>Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated.</p> <p>0 characters &lt; name length ≤ 253 characters.</p> <p>The name must be a regular expression [a-z0-9]([-a-z0-9]*[a-z0-9])?.</p>
clusterName	No	String	<p>The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.</p> <p><b>NOTE</b> Only EVS volumes are supported.</p>

Parameter	Mandatory	Type	Description
initializers	No	<b>initializers</b> object	<p>An initializer is a controller which enforces some system invariant at object creation time. This field is a list of initializers that have not yet acted on this object. If nil or empty, this object has been completely initialized. Otherwise, the object is considered uninitialized and is hidden (in list/watch and get calls) from clients that haven't explicitly asked to observe uninitialized objects. When an object is created, the system will populate this list with the current set of initializers. Only privileged users may set or modify this list. Once it is empty, it may not be modified further by any user.</p>

Parameter	Mandatory	Type	Description
generateName	No	String	<p>An optional prefix used by the server to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different from the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409. Instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified.</p> <p>0 characters &lt; generated name length ≤ 253 characters.</p> <p>The generated name must be a regular expression [a-z0-9]([-a-z0-9]*[a-z0-9])?.</p>

Parameter	Mandatory	Type	Description
namespace	No	String	<p>Namespace defines the space within each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty. Must be a DNS_LABEL. Cannot be updated.</p> <p>0 characters &lt; namespace length ≤ 63 characters.</p> <p>The namespace must be a regular expression [a-z0-9]([-a-z0-9]*[a-z0-9])?.</p>
selfLink	No	String	<p>A URL representing this object. Populated by the system. Read-only.</p> <p><b>NOTE</b> This field is automatically generated. Do not assign any value to this field. Otherwise, API calls would fail.</p>
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations. Populated by the system. Read-only.</p> <p><b>NOTE</b> This field is automatically generated. Do not assign any value to this field. Otherwise, API calls would fail.</p>



Parameter	Mandatory	Type	Description
resourceVersion	No	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources. Populated by the system. Read-only. Value must be treated as opaque by clients.</p> <p><b>NOTE</b> This field is automatically generated. Do not assign any value to this field. Otherwise, API calls would fail.</p>
generation	No	Integer	<p>A sequence number representing a specific generation of the desired state. Currently only implemented by replication controllers. Populated by the system. Read-only.</p>
creationTimestamp	No	String	<p>A timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC. Populated by the system. Read-only. Null for lists.</p> <p><b>NOTE</b> This field is automatically generated. Do not assign any value to this field. Otherwise, API calls would fail.</p>

Parameter	Mandatory	Type	Description
deletionTimestamp	No	String	RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource will be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field. Once set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. Once the resource is deleted in the API, the Kubelet will send a hard termination signal to the container. If not set, graceful deletion of the object has not been requested. Populated by the system when a graceful deletion is requested. Read-only.
deletionGracePeriodSeconds	No	Integer	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
labels	Yes	Map[string]string	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services.

Parameter	Mandatory	Type	Description
Annotations	No	Map[string]string	An unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects.
ownerReferences	No	<b>ownerReferences</b> object	(A newly added parameter in Kubernetes 1.3) List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
finalizers	No	Array of strings	(A newly added parameter in Kubernetes 1.3) Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed.

**Table 6-11** Data structure of the initializers field

Parameter	Mandatory	Type	Description
pending	No	<b>pending</b> object	Pending is a list of initializers that must execute in order before this object is visible. When the last pending initializer is removed, and no failing result is set, the initializers struct will be set to nil and the object is considered as initialized and visible to all clients.
result	No	<b>result</b> object	If result is set with the Failure field, the object will be persisted to storage and then deleted, ensuring that other clients can observe the deletion.

**Table 6-12** Data structure of the pending field

Parameter	Mandatory	Type	Description
name	No	String	Name of the process that is responsible for initializing this object.

**Table 6-13** Data structure of the result field

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
code	No	Integer	Suggested HTTP return code for this status, 0 if not set.

Parameter	Mandatory	Type	Description
details	No	<b>details</b> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated.
message	No	String	A human-readable description of the status of this operation.
metadata	Yes	<b>metadata</b> object	Standard list metadata.
reason	No	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	No	String	Status of the operation. One of: "Success" or "Failure".

**Table 6-14** Data structure of the details field

Parameter	Mandatory	Type	Description
causes	No	<b>causes</b> object	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	No	String	The group attribute of the resource associated with the status StatusReason.

Parameter	Mandatory	Type	Description
kind	No	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind.
name	No	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	No	Integer	If specified, the time in seconds before the operation should be retried.
uid	No	String	UID of the resource. (when there is a single resource which can be described).

**Table 6-15** Data structure of the metadata field

Parameter	Mandatory	Type	Description
resourceVersion	No	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only.
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.

**Table 6-16** Data structure of the causes field

Parameter	Mandatory	Type	Description
field	No	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	No	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	No	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 6-17** Data structure of the ownerReferences field

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Default to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
kind	Yes	String	Kind of the referent.

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the referent.
uid	No	String	UID of the referent.
controller	No	Boolean	If true, this reference points to the managing controller.

**Table 6-18** Data structure of the spec field

Parameter	Mandatory	Type	Description
replicas	No	Integer	The number of desired replicas. This is a pointer to distinguish between explicit zero and unspecified. Value range: $\geq 0$ . Default: 1
minReadySeconds	No	Integer	Minimum number of seconds for which a newly created pod should be ready without any of its containers crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)
template	Yes	<b>template</b> object	-
selector	Yes	Map[string]string	A label query over pods that should match the Replicas count. If Selector is empty, it is defaulted to the labels present on the Pod template. Label keys and values that must match in order to be controlled by this replication controller, if empty defaulted to labels on Pod template.

**Table 6-19** Data structure of the status field

Parameter	Mandatory	Type	Description
replicas	No	Integer	The most recently observed number of replicas.



Parameter	Mandatory	Type	Description
availableReplicas	No	Integer	The number of available replicas (ready for at least minReadySeconds) for this replication controller.
readyReplicas	No	Integer	The number of ready replicas for this replication controller.
conditions	No	<b>condition</b> object	Represents the latest available observations of a replication controller's current state.
observedGeneration	No	Integer	Reflects the generation of the most recently observed replication controller.
FullylabeledReplicas	No	Map[string]string	-

**Table 6-20** Data structure of the template field

Parameter	Mandatory	Type	Description
metadata	No	<b>metadata</b> object	-
spec	Yes	<b>spec</b> object	-

**Table 6-21** Data structure of the condition field

Parameter	Mandatory	Type	Description
lastTransitionTime	No	Time	The last time the condition transitioned from one status to another.
message	No	String	A human readable message indicating details about the transition.
reason	No	String	The reason for the condition's last transition.
status	No	String	Status of the condition, one of True, False, Unknown.
type	No	String	Type of replication controller condition.

**Table 6-22** Data structure of the spec field

Parameter	Mandatory	Type	Description
volumes	No	-	Not supported now.
affinity	No	<b>affinity</b> object	If specified, the pod's scheduling constraints <b>NOTE</b> Affinity settings cannot be configured. By default, the soft anti-affinity settings are used.
containers	Yes	<b>containers</b> object	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a pod. Cannot be updated.
restartPolicy	No	String	Restart policy for all containers within the pod. Value: <ul style="list-style-type: none"> <li>• Always</li> <li>• OnFailure</li> <li>• Never</li> </ul> Default: Always.
activeDeadline Seconds	No	Integer	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer. Value range of this parameter: > 0.
dnsPolicy	No	String	Set DNS policy for containers within the pod. Value: <ul style="list-style-type: none"> <li>• ClusterFirst</li> <li>• Default</li> </ul> Default: ClusterFirst.

Parameter	Mandatory	Type	Description
hostAliases	No	<a href="#">hostAliases</a> object	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.
serviceAccountName	No	String	Name of the ServiceAccount used to run this pod. 0 characters < service account name length ≤ 253 characters. The service account name must be a regular expression [a-z0-9]([-a-z0-9]*[a-z0-9])?. <b>NOTE</b> This field cannot be set because <b>serviceaccount</b> is not supported.
serviceAccount	No	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceAccountName instead.
schedulerName	No	String	If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler. <b>NOTE</b> The scheduler name cannot be specified.
nodeName	No	String	A request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements. 0 characters < node name length ≤ 253 characters. The node name must be a regular expression [a-z0-9]([-a-z0-9]*[a-z0-9])?. <b>NOTE</b> The node name cannot be specified.

Parameter	Mandatory	Type	Description
nodeSelector	No	Object	<p>NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node.</p> <p><b>NOTE</b> The node selector cannot be configured.</p>
automountServiceAccountToken	No	Boolean	<p>AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.</p>
hostNetwork	No	Boolean	<p>Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.</p> <p><b>NOTE</b> The hostport of the hostNetwork must be different from the containerport. The host network cannot be used when you create or update pods.</p>
hostPID	No	Boolean	<p>A flag indicating whether to use the host's pid namespace. Optional: Default to false.</p> <p><b>NOTE</b> The hostport of the hostNetwork must be different from the containerport. The host PID namespaces cannot be used when you create or update pods.</p>
hostIPC	No	Boolean	<p>A flag indicating whether to use the host's ipc namespace. Optional: Default to false.</p> <p><b>NOTE</b> The hostport of the hostNetwork must be different from the containerport. The host IPC namespaces cannot be used when you create or update pods.</p>
securityContext	No	<b>securityContext</b> object	-

Parameter	Mandatory	Type	Description
imagePullSecrets	No	<a href="#">imagePullSecrets</a> object	<p>A list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use.</p> <p><b>NOTE</b> If you select an image from the <b>My Images</b> tab page of the SWR console, this parameter is required.</p>
initContainers	No	<a href="#">containers</a> object	<p>List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, or Liveness probes. The resourceRequirements of an init container is taken into account during scheduling by finding the highest request/limit for each resource type, and then using the maximum of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed.</p>
hostname	No	String	<p>Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.</p>

Parameter	Mandatory	Type	Description
subdomain	No	String	If specified, the fully qualified Pod hostname will be "<hostname>.<subdomain>.<pod namespace>.svc<cluster domain>". If not specified, the pod will not have a domainname at all.
tolerations	No	<b>tolerations</b> object	If specified, the pod's tolerations.

**Table 6-23** Data structure of the containers field

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.  0 characters < container name length ≤ 63 characters.  The container name must be a regular expression [a-z0-9]([-a-z0-9]*[a-z0-9])?.
image	Yes	String	Container image name.
command	No	Array of strings	Entrypoint array. Not executed within a shell. The container image's entrypoint is used if this is not provided. Variable references \$ (VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$ (VAR_NAME) syntax can be escaped with a double \$\$, for example, \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated.

Parameter	Mandatory	Type	Description
args	No	Array of strings	Arguments to the endpoint. The container image's cmd is used if this is not provided. Variable references \$ (VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$ (VAR_NAME) syntax can be escaped with a double \$\$, for example, \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated.
workingDir	No	String	Container's working directory. Defaults to Container's default. Defaults to image's default. Cannot be updated.
ports	No	<b>ports</b> object	List of ports to expose from the container. Cannot be updated.
env	No	<b>env</b> object	List of environment variables to set in the container. Cannot be updated.
envFrom	No	<b>envFrom</b> object	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. Cannot be updated.
resources	No	<b>resources</b> object	Minimum resources the volume should have.

Parameter	Mandatory	Type	Description
volumeMounts	No	<b>volumeMounts</b> object	Pod volumes to mount into the container's filesystem. Cannot be updated.
livenessProbe	No	<b>livenessProbe</b> object	-
readinessProbe	No	<b>livenessProbe</b> object	-
lifecycle	No	<b>lifecycle</b> object	-
terminationMessagePath	No	String	Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Defaults to /dev/termination-log. Cannot be updated.
imagePullPolicy	No	String	Image pull policy. Defaults to Always if the :latest tag is specified, or IfNotPresent otherwise. Cannot be updated. Value: <ul style="list-style-type: none"> <li>• Always</li> <li>• Never</li> <li>• IfNotPresent</li> </ul>
securityContext	No	<b>securityContext</b> object	-
stdin	No	Boolean	A flag indicating whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.



Parameter	Mandatory	Type	Description
stdinOnce	No	Boolean	A flag indicating whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true, the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container process that reads from stdin will never receive an EOF. Default is false.
tty	No	Boolean	A flag indicating whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

**Table 6-24** Data structure of the securityContext field

Parameter	Mandatory	Type	Description
seLinuxOptions	No	seLinuxOptions object	-
runAsUser	No	Integer	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container. Value length: > 0 characters.

Parameter	Mandatory	Type	Description
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
supplementalGroups	No	Array of integers	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
fsGroup	No	Integer	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw.

**Table 6-25** Data structure of the imagePullSecrets field

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the referent.  <b>NOTICE</b> If you select an image from the <b>My Images</b> tab page of the SWR console, the value of this parameter must be set to <b>imagepull-secret</b> .

**Table 6-26** Data structure of the hostPath field

Parameter	Mandatory	Type	Description
path	No	String	Path of the directory on the host.

**Table 6-27** Data structure of the emptyDir field

Parameter	Mandatory	Type	Description
medium	No	String	What type of storage medium should back this directory. The default is "" which means to use the node's default medium. Must be an empty string (default) or Memory.

**Table 6-28** Data structure of the gitRepo field

Parameter	Mandatory	Type	Description
repository	No	String	Repository URL.
revision	No	String	Commit hash for the specified revision.

**Table 6-29** Data structure of the ports field

Parameter	Mandatory	Type	Description
name	No	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services. 0 characters < name length ≤ 15 characters. The name must be a regular expression [a-z0-9]([-a-z0-9]*[a-z0-9])?.

Parameter	Mandatory	Type	Description
hostPort	No	Integer	Number of the port to expose on the host. If specified, this must be a valid port number, $0 < x < 65536$ . If HostNetwork is specified, this must match ContainerPort. Most containers do not need this. Value range: [1, 65535].
containerPort	No	Integer	Number of the port to expose on the pod's IP address. This must be a valid port number, $0 < x < 65536$ . Value range: [1, 65535].
protocol	No	String	Protocol for port. Value: <ul style="list-style-type: none"> <li>• TCP</li> <li>• UDP</li> </ul> Default: TCP.
hostIP	No	String	What host IP to bind the external port to.

**Table 6-30** Data structure of the env field

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	No	String	Variable references $\$(VAR\_NAME)$ are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The $\$(VAR\_NAME)$ syntax can be escaped with a double $\$\$$ , for example, $\$\$(VAR\_NAME)$ . Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".

Parameter	Mandatory	Type	Description
valueFrom	No	<a href="#">valueFrom</a> object	-

**Table 6-31** Data structure of the resources field

Parameter	Mandatory	Type	Description
limits	No	Object	Maximum amount of compute resources allowed.
requests	No	Object	Minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value.  Cloud Container Instance (CCI) has limitation on pod specifications. For details, see <a href="#">Pod Specifications</a> in <a href="#">Usage Constraints</a> .

**Table 6-32** Data structure of the volumeMounts field

Parameter	Mandatory	Type	Description
name	Yes	String	This must match the name of a volume.  0 character < name length ≤ 253 characters.  The name must be a regular expression <code>[a-z0-9]([-a-z0-9]*[a-z0-9])?</code> .
readOnly	No	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified).  Value: <ul style="list-style-type: none"> <li>• true</li> <li>• false</li> </ul> Default: false.

Parameter	Mandatory	Type	Description
mountPath	No	String	Path within the container at which the volume should be mounted. Value length: > 0 characters.
subPath	No	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).

**Table 6-33** Data structure of the livenessProbe field

Parameter	Mandatory	Type	Description
exec	No	<b>exec</b> object	-
httpGet	No	<b>httpGet</b> object	-
tcpSocket	No	<b>tcpSocket</b> object	-
initialDelaySeconds	No	Integer	Number of seconds after the container has started before liveness probes are initiated. Value range: $\geq 0$ .
timeoutSeconds	No	Integer	Number of seconds after which the probe times out. Value range: $\geq 0$ . Default: 1.
periodSeconds	No	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1. Value range: $\geq 0$ . Default: 10.
successThreshold	No	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness. Minimum value is 1. Value range: $\geq 0$ . Default: 1.

Parameter	Mandatory	Type	Description
failureThreshold	No	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1. Value range: $\geq 0$ . Default: 3.

**Table 6-34** Data structure of the lifecycle field

Parameter	Mandatory	Type	Description
postStart	No	postStart/ preStop object	-
preStop	No	postStart/ preStop object	-

**Table 6-35** Data structure of the securityContext field

Parameter	Mandatory	Type	Description
capabilities	No	capabilities object	-
privileged	No	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Value: <ul style="list-style-type: none"> <li>• true</li> <li>• false</li> </ul> Default: false. <b>NOTE</b> Run container in privileged mode.
seLinuxOptions	No	seLinuxOptions object	-

Parameter	Mandatory	Type	Description
runAsUser	No	Integer	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.  Value: <ul style="list-style-type: none"> <li>• true</li> <li>• false</li> </ul>

**Table 6-36** Data structure of the seLinuxOptions field

Parameter	Mandatory	Type	Description
user	No	String	SELinux user label that applies to the container.
role	No	String	SELinux role label that applies to the container.
type	No	String	SELinux type label that applies to the container.
level	No	String	SELinux level label that applies to the container.



**Table 6-37** Data structure of the items field

Parameter	Mandatory	Type	Description
path	No	String	Relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
fieldRef	No	<b>fieldRef</b> object	-
resourceFieldRef	No	<b>resourceFieldRef</b> object	Selects a resource of the container: only resources limits and requests. (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 6-38** Data structure of the valueFrom field

Parameter	Mandatory	Type	Description
fieldRef	No	<b>fieldRef</b> object	-
resourceFieldRef	No	<b>resourceFieldRef</b> object	Selects a resource of the container: only resources limits and requests. (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 6-39** Data structure of the exec field

Parameter	Mandatory	Type	Description
command	No	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply executed, it is not run inside a shell, so traditional shell instructions (' ', etc) do not work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 6-40** Data structure of the httpGet field

Parameter	Mandatory	Type	Description
path	No	String	Path to access on the HTTP server.
port	Yes	String	Name or number of the port to access on the container. The port number must be in the range 1 to 65535. The port name must be an IANA_SVC_NAME.
host	No	String	Host name to connect to. Defaults to the pod IP address.
scheme	No	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 6-41** Data structure of the tcpSocket field

Parameter	Mandatory	Type	Description
port	Yes	String	Number or name of the port to access on the container. The port number must be in the range 1 to 65535. The port name must be an IANA_SVC_NAME.

**Table 6-42** Data structure of the postStart/preStop field

Parameter	Mandatory	Type	Description
exec	No	<b>exec</b> object	-
httpGet	No	<b>httpGet</b> object	-
tcpSocket	No	<b>tcpSocket</b> object	TCPSocket specifies an action involving a TCP port. TCP hooks not yet supported.

**Table 6-43** Data structure of the capabilities field

Parameter	Mandatory	Type	Description
add	No	<b>add</b> object	Added capabilities.
drop	No	<b>add</b> object	Removed capabilities.

**Table 6-44** Data structure of the fieldRef field

Parameter	Mandatory	Type	Description
apiVersion	No	String	Version of the schema the FieldPath is written in terms of. Defaults to "v1".
fieldPath	No	String	Path of the field to select in the specified API version.

**Table 6-45** Data structure of the resourceFieldRef field

Parameter	Mandatory	Type	Description
containerName	No	String	Container name: required for volumes, optional for env vars.
resource	Yes	String	Required: resource to select.
divisor	No	Integer	Specifies the output format of the exposed resources, defaults to "1".

**Table 6-46** Data structure of the add field

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the resource.
namespaced	No	Boolean	A flag indicating whether a resource is namespaced or not. Default: false.
kind	No	String	Kind of the resource.

**Table 6-47** Data structure of the affinity field

Parameter	Mandatory	Type	Description
nodeAffinity	No	<b>nodeAffinity</b> object	Describes node affinity scheduling rules for the pod.
podAffinity	No	<b>podAffinity</b> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	No	<b>podAffinity</b> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 6-48** Data structure of the nodeAffinity field

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	<a href="#">preferredDuringSchedulingIgnoredDuringExecution</a> object	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.
requiredDuringSchedulingIgnoredDuringExecution	No	<a href="#">requiredDuringSchedulingIgnoredDuringExecution</a> object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 6-49** Data structure of the podAffinity field

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	preferredDuringSchedulingIgnoredDuringExecution object	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods that match the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Mandatory	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	No	podAffinityTerm object	<p>NOT YET IMPLEMENTED. TODO: Uncomment field once it is implemented. If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system will try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.</p> <p>RequiredDuringSchedulingRequiredDuringExecution []PodAffinityTerm                      json:"requiredDuringSchedulingRequiredDuringExecution,omitEmpty" If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.</p>

**Table 6-50** Data structure of the preferredDuringSchedulingIgnoredDuringExecution field

Parameter	Mandatory	Type	Description
preference	No	preference object	A node selector term, associated with the corresponding weight.
weight	No	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 6-51** Data structure of the requiredDuringSchedulingIgnoredDuringExecution field

Parameter	Mandatory	Type	Description
nodeSelectorTerms	No	preference object	Required. A list of node selector terms. The terms are ORed.

**Table 6-52** Data structure of the preference field

Parameter	Mandatory	Type	Description
matchExpressions	No	matchExpressions object	Required. A list of node selector requirements. The requirements are ANDed.

**Table 6-53** Data structure of the matchExpressions field

Parameter	Mandatory	Type	Description
key	No	String	The label key that the selector applies to.
operator	No	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist, Gt, and Lt.



Parameter	Mandatory	Type	Description
values	No	String	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 6-54** Data structure of the preferredDuringSchedulingIgnoredDuringExecution field

Parameter	Mandatory	Type	Description
podAffinityTerm	No	<a href="#">podAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	No	Integer	Weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 6-55** Data structure of the podAffinityTerm field

Parameter	Mandatory	Type	Description
labelSelector	No	<a href="#">labelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	No	Array[string]	Namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace".

Parameter	Mandatory	Type	Description
topologyKey	No	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. For PreferredDuringScheduling pod anti-affinity, empty topologyKey is interpreted as "all topologies" ("all topologies" here means all the topologyKeys indicated by scheduler command-line argument --failure-domains); for affinity and for RequiredDuringScheduling pod anti-affinity, empty topologyKey is not allowed.

**Table 6-56** Data structure of the labelSelector field

Parameter	Mandatory	Type	Description
matchExpressions	No	<a href="#">matchExpressions</a> object	MatchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	No	Object	(A newly added parameter in Kubernetes 1.7) MatchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 6-57** Data structure of the matchExpressions field

Parameter	Mandatory	Type	Description
key	No	String	Key is the label key that the selector applies to.
operator	No	String	Operator represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists and DoesNotExist.
values	No	Array of strings	Values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 6-58** Data structure of the hostAliases field

Parameter	Mandatory	Type	Description
hostnames	No	Array of strings	Hostnames for the above IP address.
ip	No	String	IP address of the host file entry.

**Table 6-59** Data structure of the envFrom field

Parameter	Mandatory	Type	Description
configMapRef	No	<a href="#">configMapRef</a> object	The ConfigMap to select from
prefix	No	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
secretRef	No	<a href="#">secretRef</a> object	-

**Table 6-60** Data structure of the configMapRef field

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent.
optional	No	Boolean	Specify whether the ConfigMap must be defined

**Table 6-61** Data structure of the secretRef field

Parameter	Mandatory	Type	Description
name	No	String	Name of the referent.
optional	No	Boolean	Specify whether the ConfigMap must be defined

**Table 6-62** Data structure of the tolerations field

Parameter	Mandatory	Type	Description
effect	No	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	No	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.
operator	No	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.

Parameter	Mandatory	Type	Description
tolerationSeconds	No	Integer	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	No	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 6-63** Data structure of DeleteOptions

Parameter	Mandatory	Type	Description
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. The value of this parameter is DeleteOptions.
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. The value of this parameter is <b>v1</b> .

Parameter	Mandatory	Type	Description
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be a non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. The value <b>0</b> indicates to delete immediately.
orphanDependents	No	Boolean	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
propagationPolicy	No	String	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy.
preconditions	No	<b>Preconditions</b> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.

**Table 6-64** Data structure of the preconditions field

Parameter	Mandatory	Type	Description
uid	No	String	Specifies the target UID.

## 6.2 Response Data Structure (Discarded)

**Table 6-65** Response parameters of Pod

Parameter	Type	Description
kind	String	A string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
apiVersion	String	Versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
metadata	<b>metadata</b> object	-
spec	<b>spec</b> object	-
status	<b>status</b> object	-

**Table 6-66** Response parameters of PodList

Parameter	Type	Description
kind	String	A string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
apiVersion	String	Versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
metadata	<b>metadata</b> object	-
items	Array of <b>Pod</b> objects	List of pods.

**Table 6-67** Response parameters of PodTemplate

Parameter	Type	Description
kind	String	A string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
apiVersion	String	Versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
metadata	<b>metadata</b> object	-
template	<b>template</b> object	-

**Table 6-68** Response parameters of PodTemplateList

Parameter	Type	Description
kind	String	A string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
apiVersion	String	Versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
metadata	<b>metadata</b> object	-
items	<b>items</b> object	List of pod templates.



**Table 6-69** Data structure of the items field

Parameter	Type	Description
kind	String	A string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
apiVersion	String	Versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
metadata	<a href="#">metadata</a> object	-
spec	<a href="#">spec</a> object	-
status	<a href="#">status</a> object	-

**Table 6-70** Data structure of the status field

Parameter	Type	Description
phase	String	Current condition of the pod.
conditions	<a href="#">conditions</a> object	Current service state of the pod.
message	String	A human readable message indicating details about why the pod is in this condition.
reason	String	A brief CamelCase message indicating details about why the pod is in this state. e.g. 'OutOfDisk'
hostIP	String	IP address of the host to which the pod is assigned. Empty if not yet scheduled.
podIP	String	IP address allocated to the pod. Routable at least within the cluster. Empty if not yet allocated.
startTime	String	RFC 3339 date and time at which the object was acknowledged by the Kubelet. This is before the Kubelet pulled the container image(s) for the pod.

Parameter	Type	Description
containerStatuses	<a href="#">containerStatuses</a> object	The list has one entry per container in the manifest. Each entry is currently the output of container inspect.

**Table 6-71** Data structure of the conditions field

Parameter	Type	Description
type	String	Type of the condition. Currently only Ready.
status	String	Status of the condition. Can be True, False, or Unknown.
lastProbeTime	String	Last time we probed the condition.
lastTransitionTime	String	Last time the condition transitioned from one status to another.
reason	String	Unique, one-word, CamelCase reason for the condition's last transition.
message	String	Human-readable message indicating details about last transition.

**Table 6-72** Data structure of the containerStatuses field

Parameter	Type	Description
name	String	This must be a DNS_LABEL. Each container in a pod must have a unique name. Cannot be updated.
state	<a href="#">state/lastState</a> object	-
lastState	<a href="#">state/lastState</a> object	-
ready	Boolean	A flag indicating whether the container has passed its readiness probe.

Parameter	Type	Description
restartCount	Integer	The number of times the container has been restarted, currently based on the number of dead containers that have not yet been removed. Note that this is calculated from dead containers. However, those containers are subject to garbage collection. This value will get capped at 5 by GC.
image	String	Image that the container is running.
imageID	String	ID of the container's image.
containerID	String	Container's ID in the format 'docker://'.

**Table 6-73** Data structure of the state or lastState field

Parameter	Type	Description
waiting	<b>waiting</b> object	-
running	<b>running</b> object	-
terminated	<b>terminated</b> object	-

**Table 6-74** Data structure of the waiting field

Parameter	Type	Description
reason	String	(Brief) Reason the container is not yet running.
message	String	Message regarding why the container is not yet running.

**Table 6-75** Data structure of the running field

Parameter	Type	Description
startedAt	String	Time at which the container was last (re-)started.

**Table 6-76** Data structure of the terminated field

Parameter	Type	Description
exitCode	Integer	Exit status from the last termination of the container.
signal	Integer	Signal from the last termination of the container.
reason	String	(Brief) reason from the last termination of the container.
message	String	Message regarding the last termination of the container.
startedAt	String	Time at which previous execution of the container started.
finishedAt	String	Time at which the container last terminated.
containerID	String	Container's ID in the format 'docker://'.

**Table 6-77** Data structure of the metadata field

Parameter	Type	Description
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only.

**Table 6-78** Data structure of the items field

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
metadata	<a href="#">metadata</a> object	-
spec	<a href="#">spec</a> object	-
status	<a href="#">status</a> object	-

**Table 6-79** Data structure of the metadata field

Parameter	Type	Description
name	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated.
clusterName	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.

Parameter	Type	Description
initializers	<b>initializers</b> object	<p>An initializer is a controller which enforces some system invariant at object creation time. This field is a list of initializers that have not yet acted on this object. If nil or empty, this object has been completely initialized. Otherwise, the object is considered uninitialized and is hidden (in list/watch and get calls) from clients that haven't explicitly asked to observe uninitialized objects. When an object is created, the system will populate this list with the current set of initializers. Only privileged users may set or modify this list. Once it is empty, it may not be modified further by any user.</p>
generateName	String	<p>GenerateName is an optional prefix, used by the server, to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different from the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409 - instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified.</p>

Parameter	Type	Description
namespace	String	Namespace defines the space within each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty. Must be a DNS_LABEL. Cannot be updated.
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.
uid	String	UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations. Populated by the system. Read-only.
resourceVersion	String	An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources. Populated by the system. Read-only. Value must be treated as opaque by clients.
generation	Integer	A sequence number representing a specific generation of the desired state. Currently only implemented by replication controllers. Populated by the system. Read-only.

Parameter	Type	Description
creationTimestamp	String	CreationTimestamp is a timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC. Populated by the system. Read-only. Null for lists.
deletionTimestamp	String	DeletionTimestamp is RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource will be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field. Once set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. Once the resource is deleted in the API, the Kubelet will send a hard termination signal to the container. If not set, graceful deletion of the object has not been requested. Populated by the system when a graceful deletion is requested. Read-only.
deletionGracePeriodSeconds	Integer	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.



Parameter	Type	Description
labels	Map[string]string	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services.
Annotations	Map[string]string	Annotations is an unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects.
ownerReferences	<b>ownerReferences</b> object	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
finalizers	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed.

**Table 6-80** Data structure of the spec field

Parameter	Type	Description
replicas	Integer	Replicas is the number of desired replicas. This is a pointer to distinguish between explicit zero and unspecified. Defaults to 1.

Parameter	Type	Description
selector	Object	Selector is a label query over pods that should match the Replicas count. If Selector is empty, it is defaulted to the labels present on the Pod template. Label keys and values that must match in order to be controlled by this replication controller, if empty defaulted to labels on Pod template.
minReadySeconds	Integer	Minimum number of seconds for which a newly created pod should be ready without any of its containers crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)
template	<b>template</b> object	-

**Table 6-81** Data structure of the status field

Parameter	Type	Description
replicas	Integer	Replicas is the most recently observed number of replicas.
availableReplicas	Integer	The number of available replicas (ready for at least minReadySeconds) for this replication controller.
readyReplicas	Integer	The number of ready replicas for this replication controller.
fullyLabeledRepl- licas	Integer	The number of pods that have labels matching the labels of the pod template of the replication controller.
conditions	<b>ReplicationControl- lerCondition</b> object	Represents the latest available observations of a replication controller's current state.
observedGenerati on	Integer	ObservedGeneration reflects the generation of the most recently observed replication controller.

**Table 6-82** Data structure of the initializers field

Parameter	Type	Description
pending	<b>pending</b> object	Pending is a list of initializers that must execute in order before this object is visible. When the last pending initializer is removed, and no failing result is set, the initializers struct will be set to nil and the object is considered as initialized and visible to all clients.
result	<b>result</b> object	If result is set with the Failure field, the object will be persisted to storage and then deleted, ensuring that other clients can observe the deletion.

**Table 6-83** Data structure of the pending field

Parameter	Type	Description
name	String	Name of the process that is responsible for initializing this object.

**Table 6-84** Data structure of the result field

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<b>details</b> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.

Parameter	Type	Description
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated.
message	String	A human-readable description of the status of this operation.
metadata	<b>metadata</b> object	Standard list metadata.
reason	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure".

**Table 6-85** Data structure of the details field

Parameter	Type	Description
causes	<b>causes</b> object	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind.
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).

Parameter	Type	Description
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried.
uid	String	UID of the resource. (when there is a single resource which can be described).

**Table 6-86** Data structure of the metadata field

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only.
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.

**Table 6-87** Data structure of the causes field

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.

Parameter	Type	Description
reason	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 6-88** Data structure of the ownerReferences field

Parameter	Type	Description
apiVersion	String	API version of the referent.
blockOwnerDeletion	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Default to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
kind	String	Kind of the referent.
name	String	Name of the referent.
uid	String	UID of the referent.
controller	Boolean	If true, this reference points to the managing controller.

**Table 6-89** Data structure of the template field

Parameter	Type	Description
metadata	<b>metadata</b> object	-
spec	<b>spec</b> object	-

**Table 6-90** Data structure of the spec field

Parameter	Type	Description
volumes	-	Not supported now.

Parameter	Type	Description
containers	<b>containers</b> object	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a pod. Cannot be updated.
restartPolicy	String	Restart policy for all containers within the pod. One of Always, OnFailure, Never. Default to Always.
activeDeadlineSeconds	Integer	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer.
dnsPolicy	String	Set DNS policy for containers within the pod. One of 'ClusterFirst' or 'Default'. Defaults to "ClusterFirst".
serviceName	String	ServiceAccountName is the name of the ServiceAccount to use to run this pod.
serviceAccount	String	DeprecatedServiceAccount is a deprecated alias for ServiceAccountName. Deprecated: Use serviceName instead.
nodeName	String	nodeName is a request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.
hostNetwork	Boolean	Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Default to false.
hostPID	Boolean	Use the host's pid namespace. Optional: Default to false.
hostIPC	Boolean	Use the host's ipc namespace. Optional: Default to false.

Parameter	Type	Description
securityContext	<a href="#">securityContext</a> object	-
imagePullSecrets	<a href="#">imagePullSecrets</a> object	ImagePullSecrets is an optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use.

**Table 6-91** Data structure of the containers field

Parameter	Type	Description
name	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated.
image	String	Container image name.
command	Array of strings	Entrypoint array. Not executed within a shell. The container image's entrypoint is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, for example, \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated.



Parameter	Type	Description
args	Array of strings	Arguments to the endpoint. The container image's cmd is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, for example, \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Cannot be updated.
workingDir	String	Container's working directory. Defaults to Container's default. Defaults to image's default. Cannot be updated.
ports	<b>ports</b> object	List of ports to expose from the container. Cannot be updated.
env	<b>env</b> object	List of environment variables to set in the container. Cannot be updated.
resources	<b>resources</b> object	Resources represents the minimum resources the volume should have.
volumeMounts	-	Not supported now.
livenessProbe	<b>livenessProbe</b> object	-
readinessProbe	<b>livenessProbe</b> object	-
lifecycle	<b>lifecycle</b> object	-
terminationMessagePath	String	Path at which the file to which the container's termination message will be written is mounted into the container's file system. Message written is intended to be brief final status, such as an assertion failure message. Defaults to /dev/termination-log. Cannot be updated.

Parameter	Type	Description
imagePullPolicy	String	Image pull policy. One of Always, Never, IfNotPresent. Defaults to Always if the latest tag is specified, or IfNotPresent otherwise. Cannot be updated.
securityContext	<a href="#">securityContext</a> object	-
stdin	Boolean	Whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF. Default is false.
stdinOnce	Boolean	Whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true, the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container process that reads from stdin will never receive an EOF. Default is false.
tty	Boolean	Whether this container should allocate a TTY for itself, also requires 'stdin' to be true. Default is false.

**Table 6-92** Data structure of the securityContext field

Parameter	Type	Description
seLinuxOptions	<a href="#">seLinuxOptions</a> object	-

Parameter	Type	Description
runAsUser	Integer	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
supplementalGroups	Array of integers	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
fsGroup	Integer	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw.

**Table 6-93** Data structure of the imagePullSecrets field

Parameter	Type	Description
name	String	Name of the referent.

**Table 6-94** Data structure of the hostPath field

Parameter	Type	Description
path	String	Path of the directory on the host.

**Table 6-95** Data structure of the gitRepo field

Parameter	Type	Description
repository	String	Repository URL
revision	String	Commit hash for the specified revision.

**Table 6-96** Data structure of the secret field

Parameter	Type	Description
secretName	String	SecretName is the name of a secret in the pod's namespace.

**Table 6-97** Data structure of the ports field

Parameter	Type	Description
name	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services.
hostPort	Integer	Number of the port to expose on the host. If specified, this must be a valid port number, $0 < x < 65536$ . If HostNetwork is specified, this must match ContainerPort. Most containers do not need this.
containerPort	Integer	Number of the port to expose on the pod's IP address. This must be a valid port number, $0 < x < 65536$ .
protocol	String	Protocol for port. Must be UDP or TCP. Defaults to "TCP".
hostIP	String	What host IP to bind the external port to.

**Table 6-98** Data structure of the env field

Parameter	Type	Description
name	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	String	Variable references \$(VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, for example, \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".
valueFrom	<a href="#">valueFrom</a> object	-

**Table 6-99** Data structure of the resources field

Parameter	Type	Description
limits	Object	Limits describes the maximum amount of compute resources allowed.
requests	Object	Requests describes the minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value.

**Table 6-100** Data structure of the livenessProbe field

Parameter	Type	Description
exec	<a href="#">exec</a> object	-
httpGet	<a href="#">httpGet</a> object	-
tcpSocket	<a href="#">tcpSocket</a> object	-

Parameter	Type	Description
initialDelaySec- onds	Integer	Number of seconds after the container has started before liveness probes are initiated.
timeoutSeconds	Integer	Number of seconds after which the probe times out. Defaults to 1 second. Minimum value is 1.
periodSeconds	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1.
successThreshold	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness. Minimum value is 1.
failureThreshold	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1.

**Table 6-101** Data structure of the lifecycle field

Parameter	Type	Description
postStart	<b>postStart/preStop</b> object	-
preStop	<b>postStart/preStop</b> object	-

**Table 6-102** Data structure of the securityContext field

Parameter	Type	Description
capabilities	<b>capabilities</b> object	-
privileged	Boolean	Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host. Default to false.
seLinuxOptions	<b>seLinuxOptions</b> object	-

Parameter	Type	Description
runAsUser	Integer	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.

**Table 6-103** Data structure of the seLinuxOptions field

Parameter	Type	Description
user	String	User is a SELinux user label that applies to the container.
role	String	Role is a SELinux role label that applies to the container.
type	String	Type is a SELinux type label that applies to the container.
level	String	Level is SELinux level label that applies to the container.

**Table 6-104** Data structure of the items field

Parameter	Type	Description
path	String	Required: Path is the relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
fieldRef	<b>fieldRef</b> object	-

**Table 6-105** Data structure of the valueFrom field

Parameter	Type	Description
fieldRef	<b>fieldRef</b> object	-
resourceFieldRef	<b>resourceFieldRef</b> object	Selects a resource of the container: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 6-106** Data structure of the exec field

Parameter	Type	Description
command	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply executed, it is not run inside a shell, so traditional shell instructions (' ', etc) do not work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.



**Table 6-107** Data structure of the httpGet field

Parameter	Type	Description
path	String	Path to access on the HTTP server.
port	String	Name or number of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.
host	String	Host name to connect to, defaults to the pod IP.
scheme	String	Scheme to use for connecting to the host. Defaults to HTTP.

**Table 6-108** Data structure of the tcpSocket field

Parameter	Type	Description
port	String	Number or name of the port to access on the container. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME.

**Table 6-109** Data structure of the postStart/preStop field

Parameter	Type	Description
exec	<a href="#">exec</a> object	-
httpGet	<a href="#">httpGet</a> object	-
tcpSocket	<a href="#">tcpSocket</a> object	TCP socket specifies an action involving a TCP port. TCP hooks not yet supported.

**Table 6-110** Data structure of the capabilities field

Parameter	Type	Description
add	<a href="#">add</a> object	Added capabilities
drop	<a href="#">add</a> object	Removed capabilities

**Table 6-111** Data structure of the fieldRef field

Parameter	Type	Description
apiVersion	String	Version of the schema the FieldPath is written in terms of, defaults to "v1"
fieldPath	String	Path of the field to select in the specified API version.

**Table 6-112** Data structure of the resourceFieldRef field

Parameter	Type	Description
containerName	String	Container name: required for volumes, optional for env vars.
resource	String	Required: resource to select.
divisor	Integer	Specifies the output format of the exposed resources, defaults to "1".

**Table 6-113** Data structure of the add field

Parameter	Type	Description
name	String	Name is the name of the resource.
namespaced	Boolean	Namespaced indicates if a resource is namespaced or not. Default: false.
kind	String	Kind is the kind for the resource.

**Table 6-114** Data structure of the metadata field

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only.

Parameter	Type	Description
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.

**Table 6-115** Data structure of the ReplicationControllerCondition field

Parameter	Type	Description
lastTransitionTime	String	The last time the condition transitioned from one status to another.
message	String	A human readable message indicating details about the transition.
reason	String	The reason for the condition's last transition.
status	String	Status of the condition, one of True, False, Unknown.
type	String	Type of replication controller condition.

**Table 6-116** Data structure of the Core field in Status v1

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
code	Integer	Suggested HTTP return code for this status, 0 if not set.
details	<a href="#">StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	String	Kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase
message	String	A human-readable description of the status of this operation.

Parameter	Type	Description
metadata	ListMeta v1 meta object	Standard list metadata.
reason	reason object	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	String	Status of the operation. One of: "Success" or "Failure".

**Table 6-117** Data structure of the meta field in StatusDetails v1

Parameter	Type	Description
causes	Array of StatusCause object	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind.
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action - for those errors this field may indicate how long to wait before taking the alternate action.
uid	String	UID of the resource. (when there is a single resource which can be described)

**Table 6-118** Data structure of the meta field in StatusCause v1

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.
reason	StatusCause Type object	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 6-119** Value description of the reason field in StatusCause

Value	Description
FieldValueNotFound	CauseTypeFieldValueNotFound is used to report failure to find a requested value (e.g. looking up an ID).
FieldValueRequired	CauseTypeFieldValueRequired is used to report required values that are not provided (e.g. empty strings, null values, or empty arrays).
FieldValueDuplicate	CauseTypeFieldValueDuplicate is used to report collisions of values that must be unique (e.g. unique IDs).
FieldValueInvalid	CauseTypeFieldValueInvalid is used to report malformed values (e.g. failed regex match).
FieldValueNotSupported	CauseTypeFieldValueNotSupported is used to report valid (as per formatting rules) values that cannot be handled (e.g. an enumerated string).
UnexpectedServerResponse	CauseTypeUnexpectedServerResponse is used to report when the server responded to the client without the expected return type. The presence of this cause indicates the error may be due to an intervening proxy or the server software malfunctioning.

**Table 6-120** Data structure of the meta field in ListMeta v1

Parameter	Type	Description
continue	String	Continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. <b>Read-only</b>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. <b>Read-only</b>

**Table 6-121** Values of the reason field in Status v1

Parameter	Value	Description
StatusReasonUnknown	""	StatusReasonUnknown means the server has declined to indicate a specific reason. The details field may contain other information about this error. <b>Status code 500</b>
StatusReasonUnauthorized	Unauthorized	StatusReasonUnauthorized means the server can be reached and understood the request, but requires the user to present appropriate authorization credentials (identified by the WWW-Authenticate header) in order for the action to be completed. If the user has specified credentials on the request, the server considers them insufficient. <b>Status code 401</b>

Parameter	Value	Description
StatusReasonForbidden	Forbidden	<p>StatusReasonForbidden means the server can be reached and understood the request, but refuses to take any further action. It is the result of the server being configured to deny access for some reason to the requested resource by the client.</p> <p>Details (optional):</p> <p>"kind" string - the kind attribute of the forbidden resource on some operations may differ from the requested resource. "id" string - the identifier of the forbidden resource</p> <p><b>Status code 403</b></p>
StatusReasonNotFound	NotFound	<p>StatusReasonNotFound means one or more resources required for this operation could not be found.</p> <p>Details (optional):</p> <p>"kind" string - the kind attribute of the missing resource on some operations may differ from the requested resource.</p> <p>"id" string - the identifier of the missing resource</p> <p><b>Status code 404</b></p>
StatusReasonAlreadyExists	AlreadyExists	<p>StatusReasonAlreadyExists means the resource you are creating already exists.</p> <p>Details (optional):</p> <p>"kind" string - the kind attribute of the conflicting resource</p> <p>"id" string - the identifier of the conflicting resource</p> <p><b>Status code 409</b></p>
StatusReasonConflict	Conflict	<p>StatusReasonConflict means the requested operation cannot be completed due to a conflict in the operation. The client may need to alter the request. Each resource may define custom details that indicate the nature of the conflict.</p> <p><b>Status code 409</b></p>
StatusReasonGone	Gone	<p>StatusReasonGone means the item is no longer available at the server and no forwarding address is known.</p> <p><b>Status code 410</b></p>

Parameter	Value	Description
StatusReasonInvalid	Invalid	<p>StatusReasonInvalid means the requested create or update operation cannot be completed due to invalid data provided as part of the request. The client may need to alter the request. When set, the client may use the StatusDetailsmessage field as a summary of the issues encountered.</p> <p>Details (optional):</p> <p>"kind" string - the kind attribute of the invalid resource</p> <p>"id" string - the identifier of the invalid resource</p> <p>"causes" - one or more StatusCause entries indicating the data in the provided resource that was invalid. The code, message, and field attributes will be set.</p> <p><b>Status code 422</b></p>
StatusReasonServerTimeout	ServerTimeout	<p>StatusReasonServerTimeout means the server can be reached and understood the request, but cannot complete the action in a reasonable time. The client should retry the request. This is probably due to temporary server load or a transient communication issue with another server. Status code 500 is used because the HTTP spec provides no suitable server-requested client retry and the 5xx class represents actionable errors.</p> <p>Details (optional):</p> <p>"kind" string - the kind attribute of the resource being acted on.</p> <p>"id" string - the operation that is being attempted.</p> <p>"retryAfterSeconds" int32 - the number of seconds before the operation should be retried</p> <p><b>Status code 500</b></p>
StatusReasonTimeout	Timeout	<p>StatusReasonTimeout means that the request could not be completed within the given time. Clients can get this response only when they specified a timeout param in the request, or if the server cannot complete the operation within a reasonable amount of time. The request might succeed with an increased value of timeout param. The client <i>should</i> wait at least the number of seconds specified by the retryAfterSeconds field. Details (optional): "retryAfterSeconds" int32 - the number of seconds before the operation should be retried</p> <p><b>Status code 504</b></p>



Parameter	Value	Description
StatusReasonBadRequest	BadRequest	StatusReasonBadRequest means that the request itself was invalid, because the request does not make any sense, for example deleting a read-only object. This is different from StatusReasonInvalid above which indicates that the API call could possibly succeed, but the data was invalid. API calls that return BadRequest can never succeed.
StatusReasonMethodNotAllowed	MethodNotAllowed	StatusReasonMethodNotAllowed means that the action the client attempted to perform on the resource was not supported by the code - for instance, attempting to delete a resource that can only be created. API calls that return MethodNotAllowed can never succeed.
StatusReasonInternalServerError	InternalServerError	StatusReasonInternalServerError indicates that an internal error occurred, it is unexpected and the outcome of the call is unknown. Details (optional): "causes" - The original error <b>Status code 500</b>
StatusReasonExpired	Expired	StatusReasonExpired indicates that the request is invalid because the content you are requesting has expired and is no longer available. It is typically associated with watches that cannot be serviced. <b>Status code 410 (gone)</b>
StatusReasonServiceUnavailable	ServiceUnavailable	StatusReasonServiceUnavailable means that the request itself was valid, but the requested service is unavailable at this time. Retrying the request after some time might succeed. <b>Status code 503</b>

## 6.3 Data Structure

**Table 6-122** Data structure of PodTemplate

Parameter	Mandatory	Type	Description
kind	Yes	String	A string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. The value of this parameter is <b>PodTemplate</b> .
apiVersion	Yes	String	Versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. The value of this parameter is <b>v1</b> .
metadata	Yes	<b>ObjectMeta</b> object	-
template	Yes	<b>PodTemplate Spec</b> object	-

**Table 6-123** Data structure of Pod

Parameter	Mandatory	Type	Description
kind	Yes	String	A string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. The value of this parameter is <b>Pod</b> .

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	Versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. The value of this parameter is <b>v1</b> .
metadata	Yes	<b>ObjectMeta</b> object	-
spec	Yes	<b>podSpec</b> object	-
status	No	<b>PodStatus</b> object	Most recently observed status of the pod.

**Table 6-124** Data structure of the PodStatus field

Parameter	Mandatory	Type	Description
phase	No	String	<p>Current condition of the pod.</p> <p><b>NOTE</b> Pod states include:</p> <ul style="list-style-type: none"> <li>- Pending: The pod has been accepted by the system, but one or more of the containers has not been started. This includes time before being bound to a node, as well as time spent pulling images onto the host.</li> <li>- Running: The pod has been bound to a node and all of the containers have been started. At least one container is still running or is in the process of being restarted.</li> <li>Succeeded: All containers in the pod have voluntarily terminated with a container exit code of 0, and the system is not going to restart any of these containers.</li> <li>Failed: All containers in the pod have terminated, and at least one container has terminated in a failure (exited with a non-zero exit code or was stopped by the system).</li> <li>Unknown: The state of the pod could not be obtained for some reasons, typically due to an error in communicating with the host of the pod.</li> </ul>
conditions	No	Array of <b>PodConditions</b> objects	Current service state of the pod.
message	No	String	A human readable message indicating details about why the pod is in this condition.
reason	No	String	A brief CamelCase message indicating details about why the pod is in this state. e.g. 'OutOfDisk'
hostIP	No	String	IP address of the host to which the pod is assigned. Empty if not yet scheduled.

Parameter	Mandatory	Type	Description
podIP	No	String	IP address allocated to the pod. Routable at least within the cluster. Empty if not yet allocated.
startTime	No	String	RFC 3339 date and time at which the object was acknowledged by the Kubelet. This is before the Kubelet pulled the container image(s) for the pod.
containerStatuses	No	Array of <b>containerStatuses</b> objects	The list has one entry per container in the manifest. Each entry is currently the output of container inspect.
initContainerStatuses	No	Array of <b>containerStatuses</b> objects	The list has one entry per init container in the manifest. The most recent successful init container will have ready = true, the most recently started container will have startTime set.
qosClass	No	String	The Quality of Service (QoS) classification assigned to the pod based on resource requirements. Can be: <ul style="list-style-type: none"> <li>- Guaranteed</li> <li>- Burstable</li> <li>- BestEffort</li> </ul>
podNetworks	No	Array of <b>PodNetworkInterface</b> objects	Complete list of Networks attached to this pod.

**Table 6-125** Data structure of the PodConditions field

Parameter	Mandatory	Type	Description
type	No	String	Type of the condition. Currently only Ready. <b>Resizing</b> - An user trigger resize of pvc has been started <b>NOTE</b> Pod conditions include: - PodScheduled: represents status of the scheduling process for this pod. - Ready: pod is able to service requests and should be added to the load balancing pools of all matching services. - Initialized: all init containers in the pod have started successfully. - Unschedulable: the scheduler cannot schedule the pod right now, for example due to insufficient resources in the cluster.
status	No	String	Status of the condition. Can be <b>True</b> , <b>False</b> , or <b>Unknown</b> .
lastProbeTime	No	String	Last time we probed the condition.
lastTransitionTime	No	String	Last time the condition transitioned from one status to another.
reason	No	String	Unique, one-word, CamelCase reason for the condition's last transition.
message	No	String	Human-readable message indicating details about last transition.

**Table 6-126** Data structure of the containerStatuses field

Parameter	Mandatory	Type	Description
name	Yes	String	This must be a DNS_LABEL. Each container in a pod must have a unique name. Cannot be updated.

Parameter	Mandatory	Type	Description
state	No	<a href="#">ContainerState</a> object	Details about the container's current condition.
lastState	No	<a href="#">ContainerState</a> object	Details about the container's last termination condition.
ready	No	Boolean	Specifies whether the container has passed its readiness probe.
restartCount	No	Integer	The number of times the container has been restarted, currently based on the number of dead containers that have not yet been removed. Note that this is calculated from dead containers. However, those containers are subject to garbage collection. This value will get capped at 5 by GC.
image	Yes	String	The image the container is running.
imageID	No	String	ID of the container's image.
containerID	No	String	Container's ID in the format 'docker://'.

**Table 6-127** Data structure of the ContainerState field

Parameter	Mandatory	Type	Description
waiting	No	<a href="#">ContainerStateWaiting</a> object	Details about a waiting container.
running	No	<a href="#">ContainerStateRunning</a> object	Details about a running container.
terminated	No	<a href="#">terminated</a> object	Details about a terminated container.

**Table 6-128** Data structure of the ContainerStateWaiting field

Parameter	Mandatory	Type	Description
reason	No	String	(Brief) Reason the container is not yet running.
message	No	String	Message regarding why the container is not yet running.

**Table 6-129** Data structure of the ContainerStateRunning field

Parameter	Mandatory	Type	Description
startedAt	No	String	Time at which the container was last (re-)started.

**Table 6-130** Data structure of the terminated field

Parameter	Mandatory	Type	Description
exitCode	No	Integer	Exit status from the last termination of the container.
signal	No	Integer	Signal from the last termination of the container.
reason	No	String	(Brief) reason from the last termination of the container.
message	No	String	Message regarding the last termination of the container.
startedAt	No	String	Time at which previous execution of the container started.
finishedAt	No	String	Time at which the container last terminated.
containerID	No	String	Container's ID in the format 'docker://'



**Table 6-131** Data structure of the ObjectMeta field

Parameter	Mandatory	Type	Description
name	Yes	String	Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated.  0 characters < name length ≤ 63 characters. The name must be a regular expression [a-z0-9]([-a-z0-9]*[a-z0-9])?.
cluster Name	No	String	The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.
initializers	No	<b>initializers</b> object	An initializer is a controller which enforces some system invariant at object creation time. This field is a list of initializers that have not yet acted on this object. If nil or empty, this object has been completely initialized. Otherwise, the object is considered uninitialized and is hidden (in list/watch and get calls) from clients that haven't explicitly asked to observe uninitialized objects. When an object is created, the system will populate this list with the current set of initializers. Only privileged users may set or modify this list. Once it is empty, it may not be modified further by any user.
enable	No	Boolean	Enable identify whether the resource is available.

Parameter	Mandatory	Type	Description
generateName	No	String	<p>An optional prefix used by the server to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different from the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409. Instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified.</p> <p>0 characters &lt; generated name length ≤ 253 characters.</p> <p>The generated name must be a regular expression <code>[a-z0-9]([-a-z0-9]*[a-z0-9])?</code>.</p>
namespace	No	String	<p>Namespace defines the space within each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty. Must be a DNS_LABEL. Cannot be updated.</p> <p>0 characters &lt; namespace length ≤ 63 characters.</p> <p>The namespace must be a regular expression <code>[a-z0-9]([-a-z0-9]*[a-z0-9])?</code>.</p>
selfLink	No	String	<p>A URL representing this object. Populated by the system. Read-only.</p> <p><b>NOTE</b> This field is automatically generated. Do not assign any value to this field. Otherwise, API calls would fail.</p>
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations. Populated by the system. Read-only.</p> <p><b>NOTE</b> This field is automatically generated. Do not assign any value to this field. Otherwise, API calls would fail.</p>

Parameter	Mandatory	Type	Description
resourceVersion	No	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources. Populated by the system. Read-only. Value must be treated as opaque by clients.</p> <p><b>NOTE</b> This field is automatically generated. Do not assign any value to this field. Otherwise, API calls would fail.</p>
generation	No	Integer	<p>A sequence number representing a specific generation of the desired state. Currently only implemented by replication controllers. Populated by the system. Read-only.</p>
creationTimestamp	No	String	<p>A timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC. Populated by the system. Read-only. Null for lists.</p> <p><b>NOTE</b> This field is automatically generated. Do not assign any value to this field. Otherwise, API calls would fail.</p>
deletionTimestamp	No	String	<p>RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource will be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field. Once set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. Once the resource is deleted in the API, the Kubelet will send a hard termination signal to the container. If not set, graceful deletion of the object has not been requested. Populated by the system when a graceful deletion is requested. Read-only.</p>

Parameter	Mandatory	Type	Description
deletionGracePeriodSeconds	No	Integer	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
labels	No	Object	Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services.
annotations	No	annotations object	An unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects.  <b>NOTE</b> Each resource type has required annotations. For details, see the description in APIs of specific resources.
ownerReferences	No	Array of ownerReferences objects	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
finalizers	No	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed.

**Table 6-132** Data structure of the annotations field

Parameter	Mandatory	Type	Description
pod.logcollection.kubernetes.io	No	Array of strings	<p>List of containers whose standard output logs need to be collected. If this parameter is left blank, standard output logs of all containers will be collected.</p> <ul style="list-style-type: none"> <li>• Example 1: Collect standard output logs of all containers. pod annotation: log.stdoutcollection.kubernetes.io: {"collectionContainers":[]}</li> <li>• Example 2: Collect standard output logs of container0, where container0 is the container name. pod annotation: log.stdoutcollection.kubernetes.io: {"collectionContainers": ["container0"]}</li> </ul>
paas.storage.io/cryptKeyId	No	String	<p>Encryption key ID.</p> <p>This parameter is required only when the storage class is SFS or EVS and an encrypted volume needs to be created.</p> <p>You can obtain the key ID from the Security Console by choosing <b>Data Encryption Workshop &gt; Key Management Service</b>.</p>
paas.storage.io/cryptAlias	No	String	<p>Encryption key alias.</p> <p>This parameter is required only when the storage class is SFS and an encrypted volume needs to be created.</p> <p>You can obtain the key alias from the Security Console by choosing <b>Data Encryption Workshop &gt; Key Management Service</b>.</p>
paas.storage.io/cryptDomainId	No	String	<p>Domain ID of a tenant.</p> <p>This parameter is required only when the storage class is SFS and an encrypted volume needs to be created.</p>

**Table 6-133** Data structure of the initializers field

Parameter	Mandatory	Type	Description
pending	No	Array of <b>pending</b> objects	Pending is a list of initializers that must execute in order before this object is visible. When the last pending initializer is removed, and no failing result is set, the initializers struct will be set to nil and the object is considered as initialized and visible to all clients.
result	No	<b>status</b> object	If result is set with the Failure field, the object will be persisted to storage and then deleted, ensuring that other clients can observe the deletion.

**Table 6-134** Data structure of the pending field

Parameter	Mandatory	Type	Description
name	No	String	Name of the process that is responsible for initializing this object.

**Table 6-135** Data structure of the ownerReferences field

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
kind	Yes	String	Kind of the referent.
name	Yes	String	Name of the referent.

Parameter	Mandatory	Type	Description
uid	No	String	UID of the referent.
controller	No	Boolean	If true, this reference points to the managing controller.

**Table 6-136** Data structure of the spec field

Parameter	Mandatory	Type	Description
replicas	No	Integer	The number of desired replicas. This is a pointer to distinguish between explicit zero and unspecified. Value range: $\geq 0$ . Default: 1
minReadySeconds	No	Integer	Minimum number of seconds for which a newly created pod should be ready without any of its containers crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)
template	Yes	<a href="#">PodTemplate Spec</a> object	-
selector	Yes	Object	A label query over pods that should match the Replicas count. If Selector is empty, it is defaulted to the labels present on the Pod template. Label keys and values that must match in order to be controlled by this replication controller, if empty defaulted to labels on Pod template.

**Table 6-137** Data structure of the status field

Parameter	Mandatory	Type	Description
replicas	No	Integer	The most recently observed number of replicas.

Parameter	Mandatory	Type	Description
availableReplicas	No	Integer	The number of available replicas (ready for at least minReadySeconds) for this replication controller.
readyReplicas	No	Integer	The number of ready replicas for this replication controller.
conditions	No	<b>condition</b> object	Represents the latest available observations of a replication controller's current state.
observedGeneration	No	Integer	Reflects the generation of the most recently observed replication controller.
FullylabeledReplicas	No	Object	-

**Table 6-138** Data structure of the PodTemplateSpec field

Parameter	Mandatory	Type	Description
metadata	No	<b>ObjectMeta</b> object	-
spec	Yes	<b>podSpec</b> object	-

**Table 6-139** Data structure of the condition field

Parameter	Mandatory	Type	Description
lastTransitionTime	No	String	The last time the condition transitioned from one status to another.
message	No	String	A human readable message indicating details about the transition.
reason	No	String	The reason for the condition's last transition.
status	No	String	Status of the condition, one of True, False, Unknown.
type	No	String	Type of replication controller condition.



**Table 6-140** Data structure of the podSpec field

Parameter	Mandatory	Type	Description
volumes	No	Array of <b>volumes</b> objects	List of volumes that can be mounted by containers belonging to the pod.
affinity	No	<b>affinity</b> object	If specified, the pod's scheduling constraints. <b>NOTE</b> Affinity settings cannot be configured. By default, the soft anti-affinity settings are used.
containers	Yes	Array of <b>containers</b> objects	List of containers belonging to the pod. Containers cannot currently be added or removed. There must be at least one container in a pod. Cannot be updated.
restartPolicy	No	String	Restart policy for all containers within the pod. Value: <ul style="list-style-type: none"> <li>• Always</li> <li>• OnFailure</li> <li>• Never</li> </ul> Default: Always.
priority	No	Integer	Pod priority. A larger value indicates a higher priority. The default value is 0. Value range: [-10, 10]

Parameter	Mandatory	Type	Description
terminationGracePeriodSeconds	No	Integer	Optional duration in seconds the pod needs to terminate gracefully. May be decreased in delete request. Value must be a non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period will be used instead. The grace period is the duration in seconds after the processes running in the pod are sent a termination signal and the time when the processes are forcibly halted with a kill signal. Set this value longer than the expected cleanup time for your process. Defaults to 30 seconds.
activeDeadlineSeconds	No	Integer	Optional duration in seconds the pod may be active on the node relative to StartTime before the system will actively try to mark it failed and kill associated containers. Value must be a positive integer. Value range of this parameter: > 0.
dnsPolicy	No	String	Set DNS policy for containers within the pod. Value: <ul style="list-style-type: none"> <li>ClusterFirst</li> <li>Default</li> </ul> <b>NOTE</b> <b>dnsPolicy</b> cannot be set to <b>Default</b> . Default: ClusterFirst.
hostAliases	No	Array of <a href="#">hostAliases</a> objects	HostAliases is an optional list of hosts and IPs that will be injected into the pod's hosts file if specified. This is only valid for non-hostNetwork pods.

Parameter	Mandatory	Type	Description
serviceAccount Name	No	String	<p>Name of the ServiceAccount used to run this pod.</p> <p>0 characters &lt; service account name length ≤ 253 characters.</p> <p>The service account name must be a regular expression [a-z0-9]([-a-z0-9]*[a-z0-9])?.</p> <p><b>NOTE</b> This field cannot be set because <b>serviceaccount</b> is not supported.</p>
serviceAccount	No	String	<p>DeprecatedServiceAccount is a deprecated alias for ServiceAccountName.</p> <p>Deprecated: Use serviceAccountName instead.</p> <p><b>NOTE</b> This field cannot be set because <b>serviceaccount</b> is not supported.</p>
schedulerName	No	String	<p>If specified, the pod will be dispatched by specified scheduler. If not specified, the pod will be dispatched by default scheduler.</p> <p><b>NOTE</b> The scheduler name cannot be specified.</p>
nodeName	No	String	<p>A request to schedule this pod onto a specific node. If it is non-empty, the scheduler simply schedules this pod onto that node, assuming that it fits resource requirements.</p> <p>0 characters &lt; node name length ≤ 253 characters.</p> <p>The node name must be a regular expression [a-z0-9]([-a-z0-9]*[a-z0-9])?.</p> <p><b>NOTE</b> The node name cannot be specified.</p>

Parameter	Mandatory	Type	Description
nodeSelector	No	Object	<p>NodeSelector is a selector which must be true for the pod to fit on a node. Selector which must match a node's labels for the pod to be scheduled on that node.</p> <p><b>NOTE</b> The node selector cannot be configured.</p>
automountServiceAccountToken	No	Boolean	<p>AutomountServiceAccountToken indicates whether a service account token should be automatically mounted.</p>
hostNetwork	No	Boolean	<p>Host networking requested for this pod. Use the host's network namespace. If this option is set, the ports that will be used must be specified. Defaults to false. (This parameter cannot be configured.)</p> <p><b>NOTE</b> The host network cannot be used.</p>
hostPID	No	Boolean	<p>A flag indicating whether to use the host's pid namespace. This parameter is optional and defaults to false.</p> <p><b>NOTE</b> The host PID namespaces cannot be used.</p>
hostIPC	No	Boolean	<p>A flag indicating whether to use the host's ipc namespace. This parameter is optional and defaults to false.</p> <p><b>NOTE</b> The host IPC namespaces cannot be used.</p>
securityContext	No	<b>PodSecurityContext</b> object	<p>SecurityContext holds pod-level security attributes and common container settings. Defaults to empty.</p>

Parameter	Mandatory	Type	Description
imagePullSecrets	No	Array of <a href="#">imagePullSecrets</a> objects	<p>An optional list of references to secrets in the same namespace to use for pulling any of the images used by this PodSpec. If specified, these secrets will be passed to individual puller implementations for them to use.</p> <p><b>NOTE</b> If you select an image from the <b>My Images</b> tab page of the SWR console, this parameter is required.</p>
initContainers	No	Array of <a href="#">containers</a> objects	<p>List of initialization containers belonging to the pod. Init containers are executed in order prior to containers being started. If any init container fails, the pod is considered to have failed and is handled according to its restartPolicy. The name for an init container or normal container must be unique among all containers. Init containers may not have Lifecycle actions, Readiness probes, or Liveness probes. The resourceRequirements of an init container is taken into account during scheduling by finding the highest request/limit for each resource type, and then using the maximum of that value or the sum of the normal containers. Limits are applied to init containers in a similar fashion. Init containers cannot currently be added or removed.</p>
hostname	No	String	<p>Specifies the hostname of the Pod. If not specified, the pod's hostname will be set to a system-defined value.</p>

Parameter	Mandatory	Type	Description
subdomain	No	String	If specified, the fully qualified Pod hostname will be "<hostname>.<subdomain>.<pod namespace>.svc<cluster domain>". If not specified, the pod will not have a domainname at all.
tolerations	No	<b>tolerations</b> object	If specified, the pod's tolerations. <b>NOTE</b> The <b>tolerations</b> field cannot be configured.
priorityClassName	No	String	If specified, indicates the pod's priority. "SYSTEM" is a special keyword which indicates the highest priority. Any other name must be defined by creating a PriorityClass object with that name.  If not specified, the pod priority will be default or zero if there is no default.

**Table 6-141** Data structure of the volumes field

Parameter	Mandatory	Type	Description
name	Yes	String	Volume name. Must be a DNS_LABEL and unique within the pod.  0 characters < volume name length ≤ 63 characters.  The volume name must be a regular expression [a-z0-9]([-a-z0-9]*[a-z0-9])?.
secret	No	<b>SecretVolumeSource</b> object	Secret represents a secret that should populate this volume.
persistentVolumeClaim	No	<b>PersistentVolumeClaimVolumeSource</b> object	PersistentVolumeClaimVolumeSource represents a reference to a PersistentVolumeClaim in the same namespace.

Parameter	Mandatory	Type	Description
localDir	No	<a href="#">LocalDirVolumeSource</a> object	LocalDir represents a LocalDir volume that is created by LVM and mounted into the pod
emptyDir	No	<a href="#">emptyDir</a> object	Used for creating a pod mounted into a local volume.

**Table 6-142** Data structure of the containers field

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the container specified as a DNS_LABEL. Each container in a pod must have a unique name (DNS_LABEL). Cannot be updated. 0 characters < container name length ≤ 63 characters. The container name must be a regular expression [a-z0-9]([-a-z0-9]*[a-z0-9])?. <b>Cannot be updated.</b>
image	Yes	String	Container image address. For details, see <a href="#">Obtaining a Container Image Address</a> .
command	No	Array of strings	Entrypoint array. Not executed within a shell. The container image's entrypoint is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, for example, \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. <b>Cannot be updated.</b>

Parameter	Mandatory	Type	Description
args	No	Array of strings	Arguments to the entrypoint. The container image's cmd is used if this is not provided. Variable references \$(VAR_NAME) are expanded using the container's environment. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, for example, \$\$\$(VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. <b>Cannot be updated.</b>
workingDir	No	String	Container's working directory. Defaults to Container's default. Defaults to image's default. <b>Cannot be updated.</b>
ports	No	Array of <b>ContainerPort</b> objects	List of ports to expose from the container. <b>Cannot be updated.</b>
env	No	Array of <b>EnvVar</b> objects	List of environment variables to set in the container. <b>Cannot be updated.</b>
envFrom	No	Array of <b>EnvFromSource</b> objects	List of sources to populate environment variables in the container. The keys defined within a source must be a C_IDENTIFIER. All invalid keys will be reported as an event when the container is starting. When a key exists in multiple sources, the value associated with the last source will take precedence. Values defined by an Env with a duplicate key will take precedence. <b>Cannot be updated.</b>
resources	No	<b>ResourceRequirements</b> object	Minimum resources the volume should have. <b>Cannot be updated.</b>
volumeMounts	No	Array of <b>VolumeMounts</b> objects	Pod volumes to mount into the container's filesystem. <b>Cannot be updated.</b>



Parameter	Mandatory	Type	Description
volumeDevices	No	Array of <b>volume Device</b> objects	VolumeDevices is the list of block devices to be used by the container. This is an alpha feature and may change in the future.
livenessProbe	No	<b>Probe</b> object	Periodic probe of container liveness. Container will be restarted if the probe fails. <b>Cannot be updated.</b>
readinessProbe	No	<b>Probe</b> object	Periodic probe of container service readiness. Container will be removed from service endpoints if the probe fails. <b>Cannot be updated.</b>
lifecycle	No	<b>lifecycle</b> object	Actions that the management system should take in response to container lifecycle events. <b>Cannot be updated.</b>
terminationMessagePath	No	String	Path at which the file to which the container's termination message will be written is mounted into the container's filesystem. Message written is intended to be brief final status, such as an assertion failure message. Defaults to /dev/termination-log. Cannot be updated. <b>Cannot be updated.</b>

Parameter	Mandatory	Type	Description
terminationMessagePolicy	No	String	<p>Indicate how the termination message should be populated. File will use the contents of terminationMessagePath to populate the container status message on both success and failure. FallbackToLogsOnError will use the last chunk of container log output if the termination message file is empty and the container exited with an error.</p> <p>The log output is limited to 2048 bytes or 80 lines, whichever is smaller.</p> <p><b>Defaults to File.</b> <b>Cannot be updated.</b></p> <p><b>NOTE</b> Value options: -File: default behavior and will set the container status message to the contents of the container's terminationMessagePath when the container exits. -FallbackToLogsOnError: will read the most recent contents of the container logs for the container status message when the container exits with an error and the terminationMessagePath has no contents.</p>
imagePullPolicy	No	String	<p>Image pull policy. Defaults to Always if the :latest tag is specified, or IfNotPresent otherwise. Cannot be updated.</p> <p>Value:</p> <ul style="list-style-type: none"> <li>• Always</li> <li>• Never</li> <li>• IfNotPresent</li> </ul> <p><b>Cannot be updated.</b></p> <p><b>NOTE</b> Only <b>Always</b> is supported.</p>
securityContext	No	<b>securityContext</b> object	Security options the pod should run with
stdin	No	Boolean	<p>A flag indicating whether this container should allocate a buffer for stdin in the container runtime. If this is not set, reads from stdin in the container will always result in EOF.</p> <p><b>Default is false.</b></p>

Parameter	Mandatory	Type	Description
stdinOnce	No	Boolean	A flag indicating whether the container runtime should close the stdin channel after it has been opened by a single attach. When stdin is true, the stdin stream will remain open across multiple attach sessions. If stdinOnce is set to true, stdin is opened on container start, is empty until the first client attaches to stdin, and then remains open and accepts data until the client disconnects, at which time stdin is closed and remains closed until the container is restarted. If this flag is false, a container process that reads from stdin will never receive an EOF. <b>Default is false.</b>
tty	No	Boolean	A flag indicating whether this container should allocate a TTY for itself, also requires 'stdin' to be true. <b>Default is false.</b>

**Table 6-143** Data structure of the PodSecurityContext field

Parameter	Mandatory	Type	Description
seLinuxOptions	No	seLinuxOptions object	-
runAsUser	No	Integer	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence for that container. Value length: > 0 characters.

Parameter	Mandatory	Type	Description
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in SecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
supplementalGroups	No	Array of integers	A list of groups applied to the first process run in each container, in addition to the container's primary GID. If unspecified, no groups will be added to any container.
fsGroup	No	Integer	A special supplemental group that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:  The owning GID will be the FSGroup 2. The setgid bit is set (new files created in the volume will be owned by FSGroup) 3. The permission bits are OR'd with rw-rw.

Parameter	Mandatory	Type	Description
fsOwner	No	Integer	<p>A special supplemental owner that applies to all containers in a pod. Some volume types allow the Kubelet to change the ownership of that volume to be owned by the pod:</p> <ol style="list-style-type: none"> <li>1. The owning UID will be the FSOwner</li> <li>2. The setgid bit is set (new files created in the volume will be owned by FSOwner).</li> <li>3. The permission bits are OR'd with rw-----</li> </ol> <p>If unset, the Kubelet will not modify the ownership and permissions of any volume.</p>

**Table 6-144** Data structure of the imagePullSecrets field

Parameter	Mandatory	Type	Description
name	No	String	<p>Name of the referent.</p> <p><b>NOTICE</b> If you select an image from the <b>My Images</b> tab page of the SWR console, the value of this parameter must be set to <b>imagepull-secret</b>.</p>

**Table 6-145** Data structure of the SecretVolumeSource field

Parameter	Mandatory	Type	Description
secretName	No	String	Name of a secret in the pod's namespace.

Parameter	Mandatory	Type	Description
items	No	<a href="#">items(KeyToPath)</a> object	If unspecified, each key-value pair in the Data field of the referenced. Secret will be projected into the volume as a file whose name is the key and content is the value. If specified, the listed keys will be projected into the specified paths, and unlisted keys will not be present. If a key is specified which is not present in the Secret, the volume setup will error. Paths must be relative and may not contain the '..' path or start with '..'.
defaultMode	No	Integer	Optional: mode bits to use on created files by default. Must be a value between 0 and 0777. Defaults to 0644. Directories within the path are not affected by this setting. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.
optional	No	Boolean	Specify whether the Secret or its keys must be defined

**Table 6-146** Data structure of the PersistentVolumeClaimVolumeSource field

Parameter	Mandatory	Type	Description
claimName	No	String	Name of a PersistentVolumeClaim in the same namespace as the pod using this volume.
readOnly	No	Boolean	ReadOnly here will force the ReadOnly setting in VolumeMounts. Value: <ul style="list-style-type: none"> <li>• true</li> <li>• false</li> </ul> <b>Default: false.</b>

**Table 6-147** Data structure of the items(KeyToPath) field

Parameter	Mandatory	Type	Description
key	No	String	The key to project.
path	No	String	The relative path of the file to map the key to. May not be an absolute path. May not contain the path element '..'. May not start with the string '..'.
mode	No	Integer	Mode bits to use on this file, must be a value between 0 and 0777. If not specified, the volume defaultMode will be used. This might be in conflict with other options that affect the file mode, like fsGroup, and the result can be other mode bits set.

**Table 6-148** Data structure of the ContainerPort field

Parameter	Mandatory	Type	Description
name	No	String	If specified, this must be an IANA_SVC_NAME and unique within the pod. Each named port in a pod must have a unique name. Name for the port that can be referred to by services. 0 characters < name length ≤ 15 characters. The name must be a regular expression [a-z0-9]([-a-z0-9]*[a-z0-9])?.
hostPort	No	Integer	Number of the port to expose on the host. If specified, this must be a valid port number, 0 < x < 65536. If HostNetwork is specified, this must match ContainerPort. Most containers do not need this. Value range: [1, 65535]. <b>NOTE</b> The <b>hostPort</b> field cannot be configured.

Parameter	Mandatory	Type	Description
containerPort	No	Integer	Number of the port to expose on the pod's IP address. This must be a valid port number, $0 < x < 65536$ . Value range: [1, 65535].
protocol	No	String	Protocol for port. Value: <ul style="list-style-type: none"> <li>• TCP</li> <li>• UDP</li> </ul> Default: TCP.
hostIP	No	String	What host IP to bind the external port to. <b>NOTE</b> The <b>hostIP</b> field cannot be configured.

**Table 6-149** Data structure of the EnvVar field

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the environment variable. Must be a C_IDENTIFIER.
value	No	String	Variable references \$ (VAR_NAME) are expanded using the previous defined environment variables in the container and any service environment variables. If a variable cannot be resolved, the reference in the input string will be unchanged. The \$(VAR_NAME) syntax can be escaped with a double \$\$, for example, \$\$ (VAR_NAME). Escaped references will never be expanded, regardless of whether the variable exists or not. Defaults to "".
valueFrom	No	<a href="#">EnvVarSource</a> object	Source for the environment variable's value. Cannot be used if value is not empty.



**Table 6-150** Data structure of the ResourceRequirements field

Parameter	Mandatory	Type	Description
limits	No	Array of <a href="#">ResourceName</a> objects	Maximum amount of compute resources allowed. <b>NOTE</b> The values of <b>limits</b> and <b>requests</b> must be the same. Otherwise, an error is reported.
requests	No	Array of <a href="#">ResourceName</a> objects	Minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value.  Cloud Container Instance (CCI) has limitation on pod specifications. For details, see <b>Pod Specifications</b> in <a href="#">Usage Constraints</a> .

**Table 6-151** Available values of the ResourceName field

Parameter	Mandatory	Type	Description
storage	No	String	Volume size, in bytes (e.g. 5Gi = 5GiB = 5 * 1024 * 1024 * 1024)
cpu	No	String	CPU size, in cores. (500m = .5 cores)
memory	No	String	Memory size, in bytes. (500Gi = 500GiB = 500 * 1024 * 1024 * 1024)
localdir	No	String	Local Storage for LocalDir, in bytes. (500Gi = 500GiB = 500 * 1024 * 1024 * 1024)
nvidia.com/gpu-tesla-v100-16GB	No	String	NVIDIA GPU resource. The type may change in different environments. It is nvidia.com/gpu-tesla-v100-16GB in production environment now. The value must be an integer and not less than 1.

**Table 6-152** Data structure of the volumeMounts field

Parameter	Mandatory	Type	Description
name	Yes	String	This must match the name of a volume. 0 characters < name length ≤ 253 characters The name must be a regular expression [a-z0-9]([-a-z0-9]*[a-z0-9])?.
readOnly	No	Boolean	Mounted read-only if true, read-write otherwise (false or unspecified). Value: <ul style="list-style-type: none"><li>• true</li><li>• false</li></ul> Default: false.
mountPath	No	String	Path within the container at which the volume should be mounted. Value length: > 0 characters.
subPath	No	String	Path within the volume from which the container's volume should be mounted. Defaults to "" (volume's root).

Parameter	Mandatory	Type	Description
mountPropagation	No	String	<p>mountPropagation determines how mounts are propagated from the host to container and the other way around.</p> <p>When not set, MountPropagationHostToContainer is used. This field is alpha in 1.8 and can be reworked or removed in a future release.</p> <p><b>NOTE</b> The available values include:</p> <ul style="list-style-type: none"> <li>- HostToContainer: means that the volume in a container will receive new mounts from the host or other containers, but filesystems mounted inside the container will not be propagated to the host or other containers. Note that this mode is recursively applied to all mounts in the volume ("rslave" in Linux terminology).</li> <li>- Bidirectional: means that the volume in a container will receive new mounts from the host or other containers, and its own mounts will be propagated from the container to the host or other containers. Note that this mode is recursively applied to all mounts in the volume ("rshared" in Linux terminology)</li> </ul>

Parameter	Mandatory	Type	Description
extendPathMode	No	String	<p>Extend the volume path by appending the pod metadata to the path according to specified pattern, which provides a way of directory isolation and helps prevent the writing conflict between different pods.</p> <p><b>NOTE</b> The available values include:</p> <ul style="list-style-type: none"> <li>- PodUID: Include PodUID in path</li> <li>- PodName: Include Pod full name in path</li> <li>- PodUID/ContainerName: Include Pod UID and container name in path</li> <li>- PodName/ContainerName: Include Pod full name and container name in path</li> </ul>

**Table 6-153** Data structure of volumeDevice

Parameter	Type	Description
name	String	Name must match the name of a persistentVolumeClaim in the pod.
devicePath	String	DevicePath is the path inside of the container that the device will be mapped to.

**Table 6-154** Data structure of the Probe field

Parameter	Mandatory	Type	Description
exec	No	<b>exec</b> object	<p>Only one option should be specified.</p> <p>Exec specifies the action to take.</p>
initialDelaySeconds	No	Integer	<p>Number of seconds after the container has started before liveness probes are initiated.</p> <p>Value range: <math>\geq 0</math>.</p>

Parameter	Mandatory	Type	Description
timeoutSeconds	No	Integer	Number of seconds after which the probe times out. Value range: $\geq 0$ . Default: 1.
periodSeconds	No	Integer	How often (in seconds) to perform the probe. Default to 10 seconds. Minimum value is 1. Value range: $\geq 0$ . Default: 10.
successThreshold	No	Integer	Minimum consecutive successes for the probe to be considered successful after having failed. Defaults to 1. Must be 1 for liveness. Minimum value is 1. Value range: $\geq 0$ . Default: 1.
failureThreshold	No	Integer	Minimum consecutive failures for the probe to be considered failed after having succeeded. Defaults to 3. Minimum value is 1. Value range: $\geq 0$ . Default: 3.

**Table 6-155** Data structure of the lifecycle field

Parameter	Mandatory	Type	Description
postStart	No	<b>Handler</b> object	PostStart is called immediately after a container is created. If the handler fails, the container is terminated and restarted according to its restart policy. Other management of the container blocks until the hook completes.

Parameter	Mandatory	Type	Description
preStop	No	<b>Handler</b> object	<p>PreStop is called immediately before a container is terminated. The container is terminated after the handler completes. The reason for termination is passed to the handler.</p> <p>Regardless of the outcome of the handler, the container is eventually terminated.</p> <p>Other management of the container blocks until the hook completes.</p>

**Table 6-156** Data structure of the securityContext field

Parameter	Mandatory	Type	Description
capabilities	No	<b>capabilities</b> object	<p>The capabilities to add/drop when running containers.</p> <p>Defaults to the default set of capabilities granted by the container runtime.</p>
privileged	No	Boolean	<p>Run container in privileged mode. Processes in privileged containers are essentially equivalent to root on the host.</p> <p>Value:</p> <ul style="list-style-type: none"> <li>• true</li> <li>• false</li> </ul> <p>Default: false.</p> <p><b>NOTE</b> This parameter cannot be set to <b>True</b>.</p>

Parameter	Mandatory	Type	Description
seLinuxOptions	No	seLinuxOptions object	The SELinux context to be applied to the container. If unspecified, the container runtime will allocate a random SELinux context for each container. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsUser	No	Integer	The UID to run the entrypoint of the container process. Defaults to user specified in image metadata if unspecified. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence.
runAsNonRoot	No	Boolean	Indicates that the container must run as a non-root user. If true, the Kubelet will validate the image at runtime to ensure that it does not run as UID 0 (root) and fail to start the container if it does. If unset or false, no such validation will be performed. May also be set in PodSecurityContext. If set in both SecurityContext and PodSecurityContext, the value specified in SecurityContext takes precedence. Value: <ul style="list-style-type: none"> <li>• true</li> <li>• false</li> </ul>
readOnlyRootFilesystem	No	Boolean	Whether this container has a read-only root filesystem. <b>Default is false.</b>

Parameter	Mandatory	Type	Description
allowPrivilegeEscalation	No	Boolean	AllowPrivilegeEscalation controls whether a process can gain more privileges than its parent process. This bool directly controls if the no_new_privs flag will be set on the container process. AllowPrivilegeEscalation is true always when the container is: 1) run as Privileged 2) has CAP_SYS_ADMIN

**Table 6-157** Data structure of the seLinuxOptions field

Parameter	Mandatory	Type	Description
user	No	String	SELinux user label that applies to the container.
role	No	String	SELinux role label that applies to the container.
type	No	String	SELinux type label that applies to the container.
level	No	String	SELinux level label that applies to the container.

**Table 6-158** Data structure of the items field

Parameter	Mandatory	Type	Description
path	No	String	Relative path name of the file to be created. Must not be absolute or contain the '..' path. Must be utf-8 encoded. The first item of the relative path must not start with '..'
fieldRef	No	<b>ObjectFields</b> <b>elector</b> object	-



Parameter	Mandatory	Type	Description
resourceFieldRef	No	<b>ResourceFieldSelector</b> object	Selects a resource of the container: only resources limits and requests. (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 6-159** Data structure of the EnvVarSource field

Parameter	Mandatory	Type	Description
fieldRef	No	<b>ObjectFieldSelector</b> object	Selects a field of the pod: supports metadata.name, metadata.namespace, metadata.labels, metadata.annotations, spec.nodeName, spec.serviceAccountName, status.hostIP, status.podIP.
resourceFieldRef	No	<b>ResourceFieldSelector</b> object	Selects a resource of the container: only resources limits and requests. (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.
configMapKeyRef	No	<b>ConfigMapKeySelector</b> object	Selects a key of a ConfigMap.
secretKeyRef	No	<b>SecretKeySelector</b> object	Selects a key of a secret in the pod's namespace
processResourceFieldRef	No	<b>ProcessResourceFieldSelector</b> object	Selects a resource of the process: only resources limits and requests (limits.cpu, limits.memory, requests.cpu and requests.memory) are currently supported.

**Table 6-160** Data structure of the exec field

Parameter	Mandatory	Type	Description
command	No	Array of strings	Command is the command line to execute inside the container, the working directory for the command is root ('/') in the container's filesystem. The command is simply executed, it is not run inside a shell, so traditional shell instructions (' ', etc) do not work. To use a shell, you need to explicitly call out to that shell. Exit status of 0 is treated as live/healthy and non-zero is unhealthy.

**Table 6-161** Data structure of Handler

Parameter	Mandatory	Type	Description
exec	No	<b>exec</b> object	Only one option should be specified. Exec specifies the action to take.

**Table 6-162** Data structure of the capabilities field

Parameter	Mandatory	Type	Description
add	No	Array of strings	Added capabilities.
drop	No	Array of strings	Removed capabilities.

**Table 6-163** Data structure of the ObjectFieldSelector field

Parameter	Mandatory	Type	Description
apiVersion	No	String	Version of the schema the FieldPath is written in terms of. Defaults to "v1".
fieldPath	No	String	Path of the field to select in the specified API version.

**Table 6-164** Data structure of the ResourceFieldSelector field

Parameter	Mandatory	Type	Description
containerName	No	String	Container name: required for volumes, optional for env vars.
resource	Yes	String	Required: resource to select.
divisor	No	String	Specifies the output format of the exposed resources, defaults to "1".

**Table 6-165** Data structure of the ConfigMapKeySelector field

Parameter	Mandatory	Type	Description
name	No	String	The ConfigMap name to select from
key	No	String	Key to be selected.
optional	No	String	Specify whether the ConfigMap or its key must be defined

**Table 6-166** Data structure of the SecretKeySelector field

Parameter	Mandatory	Type	Description
name	No	String	Secret name to be selected.
key	No	String	Key to be selected.
optional	No	String	Whether the secret or its key must be defined.

**Table 6-167** Data structure of the ProcessResourceFieldSelector field

Parameter	Mandatory	Type	Description
processName	No	String	Process name: required for volumes, optional for env vars
resource	Yes	String	Required: resource to select.
divisor	No	Integer	Specifies the output format of the exposed resources, defaults to "1".

**Table 6-168** Data structure of the EnvFromSource field

Parameter	Mandatory	Type	Description
prefix	No	String	An optional identifier to prepend to each key in the ConfigMap. Must be a C_IDENTIFIER.
configMapRef	No	<a href="#">ConfigMapEnvSource</a> object	The ConfigMap to select from
secretRef	No	<a href="#">SecretEnvSource</a> object	The Secret to select from

**Table 6-169** Data structure of the ConfigMapEnvSource field

Parameter	Mandatory	Type	Description
name	No	String	The ConfigMap to select from
optional	No	String	Specify whether the ConfigMap must be defined

**Table 6-170** Data structure of the SecretEnvSource field

Parameter	Mandatory	Type	Description
name	No	String	Secret name to be selected.
optional	No	String	Whether the secret must be defined.

**Table 6-171** Data structure of the add field

Parameter	Mandatory	Type	Description
name	Yes	String	Name of the resource.
namespaced	No	Boolean	A flag indicating whether a resource is namespaced or not. Default: false.
kind	No	String	Kind of the resource.

**Table 6-172** Data structure of the affinity field

Parameter	Mandatory	Type	Description
nodeAffinity	No	<a href="#">nodeAffinity</a> object	Describes node affinity scheduling rules for the pod.
podAffinity	No	<a href="#">podAffinity</a> object	Describes pod affinity scheduling rules (e.g. co-locate this pod in the same node, zone, etc. as some other pod(s)).
podAntiAffinity	No	<a href="#">podAffinity</a> object	Describes pod anti-affinity scheduling rules (e.g. avoid putting this pod in the same node, zone, etc. as some other pod(s)).

**Table 6-173** Data structure of the nodeAffinity field

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	<a href="#">preferredDuringSchedulingIgnoredDuringExecution</a> object	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node matches the corresponding matchExpressions; the node(s) with the highest sum are the most preferred.

Parameter	Mandatory	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	No	requiredDuringSchedulingIgnoredDuringExecution object	If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to an update), the system may or may not try to eventually evict the pod from its node.

**Table 6-174** Data structure of the podAffinity field

Parameter	Mandatory	Type	Description
preferredDuringSchedulingIgnoredDuringExecution	No	preferredDuringSchedulingIgnoredDuringExecution object	The scheduler will prefer to schedule pods to nodes that satisfy the affinity expressions specified by this field, but it may choose a node that violates one or more of the expressions. The node that is most preferred is the one with the greatest sum of weights, i.e. for each node that meets all of the scheduling requirements (resource request, requiredDuringScheduling affinity expressions, etc.), compute a sum by iterating through the elements of this field and adding "weight" to the sum if the node has pods that match the corresponding podAffinityTerm; the node(s) with the highest sum are the most preferred.

Parameter	Mandatory	Type	Description
requiredDuringSchedulingIgnoredDuringExecution	No	podAffinityTerm object	<p>NOT YET IMPLEMENTED. TODO: Uncomment field once it is implemented. If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system will try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.</p> <p>RequiredDuringSchedulingRequiredDuringExecution []PodAffinityTerm            json:"requiredDuringSchedulingRequiredDuringExecution,omitEmpty" If the affinity requirements specified by this field are not met at scheduling time, the pod will not be scheduled onto the node. If the affinity requirements specified by this field cease to be met at some point during pod execution (e.g. due to a pod label update), the system may or may not try to eventually evict the pod from its node. When there are multiple elements, the lists of nodes corresponding to each podAffinityTerm are intersected, i.e. all terms must be satisfied.</p>

**Table 6-175** Data structure of the preferredDuringSchedulingIgnoredDuringExecution field

Parameter	Mandatory	Type	Description
preference	No	preference object	A node selector term, associated with the corresponding weight.
weight	No	Integer	Weight associated with matching the corresponding nodeSelectorTerm, in the range 1-100.

**Table 6-176** Data structure of the requiredDuringSchedulingIgnoredDuringExecution field

Parameter	Mandatory	Type	Description
nodeSelectorTerms	No	preference object	Required. A list of node selector terms. The terms are ORed.

**Table 6-177** Data structure of the preference field

Parameter	Mandatory	Type	Description
matchExpressions	No	matchExpressions object	Required. A list of node selector requirements. The requirements are ANDed.

**Table 6-178** Data structure of the matchExpressions field

Parameter	Mandatory	Type	Description
key	No	String	The label key that the selector applies to.
operator	No	String	Represents a key's relationship to a set of values. Valid operators are In, NotIn, Exists, DoesNotExist. Gt, and Lt.



Parameter	Mandatory	Type	Description
values	No	String	An array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. If the operator is Gt or Lt, the values array must have a single element, which will be interpreted as an integer. This array is replaced during a strategic merge patch.

**Table 6-179** Data structure of the preferredDuringSchedulingIgnoredDuringExecution field

Parameter	Mandatory	Type	Description
podAffinityTerm	No	<a href="#">podAffinityTerm</a> object	Required. A pod affinity term, associated with the corresponding weight.
weight	No	Integer	Weight associated with matching the corresponding podAffinityTerm, in the range 1-100.

**Table 6-180** Data structure of the podAffinityTerm field

Parameter	Mandatory	Type	Description
labelSelector	No	<a href="#">labelSelector</a> object	A label query over a set of resources, in this case pods.
namespaces	No	Array of strings	Namespaces specifies which namespaces the labelSelector applies to (matches against); null or empty list means "this pod's namespace".

Parameter	Mandatory	Type	Description
topologyKey	No	String	This pod should be co-located (affinity) or not co-located (anti-affinity) with the pods matching the labelSelector in the specified namespaces, where co-located is defined as running on a node whose value of the label with key topologyKey matches that of any node on which any of the selected pods is running. For PreferredDuringScheduling pod anti-affinity, empty topologyKey is interpreted as "all topologies" ("all topologies" here means all the topologyKeys indicated by scheduler command-line argument --failure-domains); for affinity and for RequiredDuringScheduling pod anti-affinity, empty topologyKey is not allowed.

**Table 6-181** Data structure of the labelSelector field

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">LabelSelectorRequirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	No	Object	matchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 6-182** Data structure of the LabelSelectorRequirement field

Parameter	Mandatory	Type	Description
key	No	String	Key is the label key that the selector applies to.
operator	No	String	Operator represents a key's relationship to a set of values. <b>Valid operators are In, NotIn, Exists and DoesNotExist.</b>
values	No	Array of strings	Values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 6-183** Data structure of the hostAliases field

Parameter	Mandatory	Type	Description
hostnames	No	Array of strings	Hostnames for the above IP address.
ip	No	String	IP address of the host file entry.

**Table 6-184** Data structure of the tolerations field

Parameter	Mandatory	Type	Description
effect	No	String	Effect indicates the taint effect to match. Empty means match all taint effects. When specified, allowed values are NoSchedule, PreferNoSchedule and NoExecute.
key	No	String	Key is the taint key that the toleration applies to. Empty means match all taint keys. If the key is empty, operator must be Exists; this combination means to match all values and all keys.

Parameter	Mandatory	Type	Description
operator	No	String	Operator represents a key's relationship to the value. Valid operators are Exists and Equal. Defaults to Equal. Exists is equivalent to wildcard for value, so that a pod can tolerate all taints of a particular category.
tolerationSeconds	No	Integer	TolerationSeconds represents the period of time the toleration (which must be of effect NoExecute, otherwise this field is ignored) tolerates the taint. By default, it is not set, which means tolerate the taint forever (do not evict). Zero and negative values will be treated as 0 (evict immediately) by the system.
value	No	String	Value is the taint value the toleration matches to. If the operator is Exists, the value should be empty, otherwise just a regular string.

**Table 6-185** Data structure of DeleteOptions

Parameter	Mandatory	Type	Description
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. The value of this parameter is <b>Namespace</b> .

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. The value of this parameter is <b>v1</b> .
gracePeriodSeconds	No	Integer	The duration in seconds before the object should be deleted. Value must be a non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. The value <b>0</b> indicates to delete immediately.  Value range of this parameter: > 0.
preconditions	No	<b>preconditions</b> object	Must be fulfilled before a deletion is carried out. If not possible, a 409 Conflict status will be returned.
orphanDependents	No	Boolean	Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list.

Parameter	Mandatory	Type	Description
propagationPolicy	No	String	<p>Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy.</p> <p><b>NOTICE</b> Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.</p>

**Table 6-186** Data structure of the preconditions field

Parameter	Mandatory	Type	Description
uid	No	String	Specifies the target UID.

**Table 6-187** Data structure of PodNetworkInterface

Parameter	Type	Description
name	String	Name of the interface inside the pod
network	String	Name of the attached network
ip	Array of strings	IP address(both v4 and v6) of this interface

**Table 6-188** Data structure of v1.PodList

Parameter	Type	Description
kind	String	A string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
apiVersion	String	Versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
metadataString	<a href="#">ListMeta</a> object	-
items	Array of <a href="#">Pod</a> objects	List of pods.

**Table 6-189** Data structure of v1.PodTemplateList

Parameter	Type	Description
kind	String	A string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
apiVersion	String	Versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
metadata	<a href="#">ListMeta</a> object	-
items	Array of <a href="#">PodTemplate</a> objects	List of pod templates.

**Table 6-190** Data structure of the status field

Parameter	Type	Description
phase	String	Current condition of the pod.
conditions	<a href="#">PodConditions</a> object	Current service state of the pod.

Parameter	Type	Description
message	String	A human readable message indicating details about why the pod is in this condition.
reason	String	A brief CamelCase message indicating details about why the pod is in this state. e.g. 'OutOfDisk'
hostIP	String	IP address of the host to which the pod is assigned. Empty if not yet scheduled.
podIP	String	IP address allocated to the pod. Routable at least within the cluster. Empty if not yet allocated.
startTime	String	RFC 3339 date and time at which the object was acknowledged by the Kubelet. This is before the Kubelet pulled the container image(s) for the pod.
containerStatuses	<a href="#">containerStatuses</a> object	The list has one entry per container in the manifest. Each entry is currently the output of container inspect.

**Table 6-191** Data structure of the metadata field

Parameter	Type	Description
selfLink	String	SelfLink is a URL representing this object. Populated by the system. Read-only.
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only.



**Table 6-192** Data structure of the objectReference field

Parameter	Type	Description
kind	String	Kind of the referent.
namespace	String	Namespace of the referent.
name	String	Name of the referent.
uid	String	UID of the referent.
apiVersion	String	API version of the referent.
resourceVersion	String	Specific resourceVersion to which this reference is made, if any.
fieldPath	String	Path of the field to select in the specified API version.

**Table 6-193** Data structure of the status field

Parameter	Type	Description
kind	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated.
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
metadata	<a href="#">ListMeta</a> object	Standard list metadata.
status	String	Status of the operation. One of: "Success" or "Failure".
message	String	A human-readable description of the status of this operation.
reason	<a href="#">reason</a> object	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
details	<a href="#">StatusDetails</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.

Parameter	Type	Description
code	Integer	Suggested HTTP return code for this status, 0 if not set.

**Table 6-194** Data structure of StatusDetails

Parameter	Type	Description
causes	Array of <a href="#">StatusCause</a> objects	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	String	The group attribute of the resource associated with the status StatusReason.
kind	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind.
name	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	Integer	If specified, the time in seconds before the operation should be retried. Some errors may indicate the client must take an alternate action - for those errors this field may indicate how long to wait before taking the alternate action.
uid	String	UID of the resource. (when there is a single resource which can be described)

**Table 6-195** Data structure of StatusCause

Parameter	Type	Description
field	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.

Parameter	Type	Description
reason	StatusCauseReason object	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 6-196** Value range of the reason field in StatusCause

Parameter	Description
FieldValueNotFound	CauseTypeFieldValueNotFound is used to report failure to find a requested value.(e.g. looking up an ID).
FieldValueRequired	CauseTypeFieldValueRequired is used to report required values that are not provided (e.g. empty strings, null values, or empty arrays).
FieldValueDuplicate	CauseTypeFieldValueDuplicate is used to report collisions of values that must be unique (e.g. unique IDs).
FieldValueInvalid	CauseTypeFieldValueInvalid is used to report malformed values (e.g. failed regex match).
FieldValueNotSupported	CauseTypeFieldValueNotSupported is used to report valid (as per formatting rules) values that cannot be handled (e.g. an enumerated string).
UnexpectedServerResponse	CauseTypeUnexpectedServerResponse is used to report when the server responded to the client without the expected return type. The presence of this cause indicates the error may be due to an intervening proxy or the server software malfunctioning.

**Table 6-197** Data structure of ListMeta

Parameter	Type	Description
continue	String	Continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response

Parameter	Type	Description
resourceVersion	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. <b>Read-only</b>
selfLink	String	SelfLink is a URL representing this object. Populated by the system. <b>Read-only</b>

**Table 6-198** reason

Parameter	Value	Description
StatusReasonUnknown	""	StatusReasonUnknown means the server has declined to indicate a specific reason. The details field may contain other information about this error. <b>Status code 500</b>
StatusReasonUnauthorized	Unauthorized	StatusReasonUnauthorized means the server can be reached and understood the request, but requires the user to present appropriate authorization credentials (identified by the WWW-Authenticate header) in order for the action to be completed. If the user has specified credentials on the request, the server considers them insufficient. <b>Status code 401</b>
StatusReasonForbidden	Forbidden	StatusReasonForbidden means the server can be reached and understood the request, but refuses to take any further action. It is the result of the server being configured to deny access for some reason to the requested resource by the client. Details (optional): "kind" string - the kind attribute of the forbidden resource on some operations may differ from the requested resource. "id" string - the identifier of the forbidden resource <b>Status code 403</b>

Parameter	Value	Description
StatusReasonNotFound	NotFound	<p>StatusReasonNotFound means one or more resources required for this operation could not be found.</p> <p>Details (optional):</p> <p>"kind" string - the kind attribute of the missing resource on some operations may differ from the requested resource.</p> <p>"id" string - the identifier of the missing resource</p> <p><b>Status code 404</b></p>
StatusReasonAlreadyExists	AlreadyExists	<p>StatusReasonAlreadyExists means the resource you are creating already exists.</p> <p>Details (optional):</p> <p>"kind" string - the kind attribute of the conflicting resource</p> <p>"id" string - the identifier of the conflicting resource</p> <p><b>Status code 409</b></p>
StatusReasonConflict	Conflict	<p>StatusReasonConflict means the requested operation cannot be completed due to a conflict in the operation. The client may need to alter the request. Each resource may define custom details that indicate the nature of the conflict.</p> <p><b>Status code 409</b></p>
StatusReasonGone	Gone	<p>StatusReasonGone means the item is no longer available at the server and no forwarding address is known.</p> <p><b>Status code 410</b></p>
StatusReasonInvalid	Invalid	<p>StatusReasonInvalid means the requested create or update operation cannot be completed due to invalid data provided as part of the request. The client may need to alter the request. When set, the client may use the StatusDetailsmessage field as a summary of the issues encountered.</p> <p>Details (optional):</p> <p>"kind" string - the kind attribute of the invalid resource</p> <p>"id" string - the identifier of the invalid resource</p> <p>"causes" - one or more StatusCause entries indicating the data in the provided resource that was invalid. The code, message, and field attributes will be set.</p> <p><b>Status code 422</b></p>

Parameter	Value	Description
StatusReasonServerTimeout	ServerTimeout	<p>StatusReasonServerTimeout means the server can be reached and understood the request, but cannot complete the action in a reasonable time. The client should retry the request. This is probably due to temporary server load or a transient communication issue with another server. Status code 500 is used because the HTTP spec provides no suitable server-requested client retry and the 5xx class represents actionable errors.</p> <p>Details (optional):</p> <p>"kind" string - the kind attribute of the resource being acted on.</p> <p>"id" string - the operation that is being attempted.</p> <p>"retryAfterSeconds" Integer - the number of seconds before the operation should be retried</p> <p><b>Status code 500</b></p>
StatusReasonTimeout	Timeout	<p>StatusReasonTimeout means that the request could not be completed within the given time. Clients can get this response only when they specified a timeout param in the request, or if the server cannot complete the operation within a reasonable amount of time. The request might succeed with an increased value of timeout param. The client <i>should</i> wait at least the number of seconds specified by the retryAfterSeconds field. Details (optional): "retryAfterSeconds" int32 - the number of seconds before the operation should be retried</p> <p><b>Status code 504</b></p>
StatusReasonTooManyRequests	TooManyRequests	<p>StatusReasonTooManyRequests means the server experienced too many requests within a given window and that the client must wait to perform the action again. A client may always retry the request that led to this error, although the client should wait at least the number of seconds specified by the retryAfterSeconds field.</p> <p>Details (optional):</p> <p>"retryAfterSeconds" int32 - the number of seconds before the operation should be retried</p> <p><b>Status code 429</b></p>

Parameter	Value	Description
StatusReasonBadRequest	BadRequest	StatusReasonBadRequest means that the request itself was invalid, because the request does not make any sense, for example deleting a read-only object. This is different from StatusReasonInvalid above which indicates that the API call could possibly succeed, but the data was invalid. API calls that return BadRequest can never succeed.
StatusReasonMethodNotAllowed	MethodNotAllowed	StatusReasonMethodNotAllowed means that the action the client attempted to perform on the resource was not supported by the code - for instance, attempting to delete a resource that can only be created. API calls that return MethodNotAllowed can never succeed.
StatusReasonInternalError	InternalError	StatusReasonInternalError indicates that an internal error occurred, it is unexpected and the outcome of the call is unknown. Details (optional): "causes" - The original error <b>Status code 500</b>
StatusReasonExpired	Expired	StatusReasonExpired indicates that the request is invalid because the content you are requesting has expired and is no longer available. It is typically associated with watches that cannot be serviced. <b>Status code 410 (gone)</b>
StatusReasonServiceUnavailable	ServiceUnavailable	StatusReasonServiceUnavailable means that the request itself was valid, but the requested service is unavailable at this time. Retrying the request after some time might succeed. <b>Status code 503</b>

**Table 6-199** Data structure of WatchEvent

Parameter	Type	Description
type	String	Type of Event. Can be: - <b>Added</b> - <b>Modified</b> - <b>Deleted</b> - <b>Error</b>

Parameter	Type	Description
Object	String	Object is: - If Type is Added or Modified: the new state of the object. - If Type is Deleted: the state of the object immediately before deletion. - If Type is Error: Status is recommended; - other types may make sense depending on context.

**Table 6-200** Data structure of Deployment

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
metadata	Yes	<b>ObjectMeta</b> object	Standard object metadata.
spec	Yes	<b>DeploymentSpec</b> object	Specification of the desired behavior of the Deployment.
status	No	<b>DeploymentStatus</b> object	Most recently observed status of the Deployment.



**Table 6-201** Data structure of the DeploymentSpec field

Parameter	Mandatory	Type	Description
minReadySeconds	No	Integer	Minimum number of seconds for which a newly created pod should be ready without any of its containers crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)
paused	No	Boolean	Indicates that the deployment is paused.
progressDeadlineSeconds	No	Integer	The maximum time in seconds for a deployment to make progress before it is considered to be failed. The deployment controller will continue to process failed deployments and a condition with a ProgressDeadlineExceeded reason will be surfaced in the deployment status. Once autoRollback is implemented, the Deployment controller will automatically roll back failed Deployments. Note that progress will not be estimated during the time a deployment is paused. Defaults to 600s.
replicas	No	Integer	Number of desired pods. This is a pointer to distinguish between explicit zero and not specified. Defaults to 1.  The value of <b>1</b> indicates one pod, meaning low availability. You are advised to set this parameter to a value greater than 1.
priority	No	Integer	Workload priority. A larger value indicates a higher priority. The default value is 0.  Value range: [-10, 10]
revisionHistoryLimit	No	Integer	The number of old ReplicaSets to retain to allow rollback. This is a pointer to distinguish between explicit zero and not specified. Defaults to 2.

Parameter	Mandatory	Type	Description
selector	No	<a href="#">labelSelector</a> object	Label selector for pods. Existing ReplicaSets whose pods are selected by this will be the ones affected by this deployment.
strategy	No	<a href="#">DeploymentStrategy</a> object	The deployment strategy to use to replace existing pods with new ones.
template	Yes	<a href="#">PodTemplateSpec</a> object	Template describes the pods that will be created.

**Table 6-202** Data structure of the DeploymentStatus field

Parameter	Mandatory	Type	Description
availableReplicas	No	Integer	Total number of available pods (ready for at least minReadySeconds) targeted by this deployment.
collisionCount	No	Integer	Count of hash collisions for the Deployment. The Deployment controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ReplicaSet.
conditions	No	Array of <a href="#">DeploymentCondition</a> objects	Represents the latest available observations of a deployment's current state.
observedGeneration	No	Integer	The generation observed by the deployment controller
readyReplicas	No	Integer	Total number of ready pods targeted by this deployment
replicas	No	Integer	Total number of non-terminated pods targeted by this deployment (their labels match the selector).
unavailableReplicas	No	Integer	Total number of unavailable pods targeted by this Deployment.
updatedReplicas	No	Integer	Total number of non-terminated pods targeted by this Deployment that have the desired template spec.

**Table 6-203** Data structure of the DeploymentStrategy field

Parameter	Mandatory	Type	Description
rollingUpdate	Yes	RollingUpdateDeployment object	Rolling update config params. Present only if DeploymentStrategy.Type = RollingUpdate.
type	No	String	Type of deployment. Can be "Recreate" or "RollingUpdate". Default is RollingUpdate.

**Table 6-204** Data structure of the DeploymentCondition field

Parameter	Mandatory	Type	Description
lastTransitionTime	No	String	Last time the condition transitioned from one status to another.
lastUpdateTime	No	String	The last time this condition was updated.
message	No	String	A human readable message indicating details about the transition.
reason	No	String	The reason for the condition's last transition.
status	No	String	Status of the condition, one of True, False, Unknown.
type	No	String	Type of deployment condition. Can be "Available", "Progressing", "ReplicaFailure"

**Table 6-205** Data structure of the RollingUpdateDeployment field

Parameter	Mandatory	Type	Description
maxSurge	No	Integer	The maximum number of pods that can be scheduled above the desired number of pods. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). This cannot be 0 if MaxUnavailable is 0. Absolute number is calculated from percentage by rounding up. Defaults to 25%. Example: when this is set to 30%, the new RC can be scaled up immediately when the rolling update starts, such that the total number of old and new pods do not exceed 130% of desired pods. Once old pods have been killed, new RC can be scaled up further, ensuring that total number of pods running at any time during the update is at most 130% of desired pods.
maxUnavailable	No	Integer	The maximum number of pods that can be unavailable during the update. Value can be an absolute number (ex: 5) or a percentage of desired pods (ex: 10%). Absolute number is calculated from percentage by rounding down. This cannot be 0 if MaxSurge is 0. Defaults to 25%. Example: when this is set to 30%, the old RC can be scaled down to 70% of desired pods immediately when the rolling update starts. Once new pods are ready, old RC can be scaled down further, followed by scaling up the new RC, ensuring that the total number of pods available at all times during the update is at least 70% of desired pods.

**Table 6-206** Data structure of the apps field in DeploymentList v1

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
metadata	No	ListMeta object	Standard object metadata.
items	Yes	Array of Deployment objects	Items is the list of Deployments

**Table 6-207** Data structure of StatefulSet

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated.
metadata	Yes	ObjectMeta object	Standard list metadata.
spec	Yes	StatefulSetSpec object	Spec defines the desired identities of pods in this set.

Parameter	Mandatory	Type	Description
status	No	<a href="#">StatefulSetStatus</a> object	Status is the current status of Pods in this StatefulSet. This data may be out of date by some window of time.

**Table 6-208** Data structure of the StatefulSetStatus field

Parameter	Mandatory	Type	Description
observedGeneration	No	Integer	Most recent generation observed by this autoscaler.
replicas	No	Integer	Replicas is the number of actual replicas.
currentReplicas	No	Integer	CurrentReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by currentRevision.
currentRevision	No	String	CurrentRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [0,currentReplicas).
readyReplicas	No	Integer	ReadyReplicas is the number of Pods created by the StatefulSet controller that have a Ready Condition.
updateRevision	No	String	UpdateRevision, if not empty, indicates the version of the StatefulSet used to generate Pods in the sequence [replicas-updatedReplicas,replicas).
updatedReplicas	No	Integer	UpdatedReplicas is the number of Pods created by the StatefulSet controller from the StatefulSet version indicated by updateRevision.

Parameter	Mandatory	Type	Description
collisionCount	No	Integer	CollisionCount is the count of hash collisions for the StatefulSet. The StatefulSet controller uses this field as a collision avoidance mechanism when it needs to create the name for the newest ControllerRevision
conditions	No	Array of <a href="#">StatefulSetCondition</a> objects	Represents the latest available observations of a statefulset's current state.

**Table 6-209** Data structure of the StatefulSetSpec field

Parameter	Mandatory	Type	Description
replicas	No	Integer	Replicas is the desired number of replicas of the given Template. These are replicas in the sense that they are instantiations of the same Template, but individual replicas also have a consistent identity. If unspecified, defaults to 1.  The value of <b>1</b> indicates one pod, meaning low availability. You are advised to set this parameter to a value greater than 1.
priority	No	Integer	Workload priority. A larger value indicates a higher priority. The default value is 0. Value range: [-10, 10]

Parameter	Mandatory	Type	Description
podManagementPolicy	No	String	<p>PodManagementPolicy controls how pods are created during initial scale up, when replacing pods on nodes, or when scaling down.</p> <p>Values can be: <b>OrderedReady</b>, <b>Parallel</b>.</p> <p><b>The default policy is OrderedReady</b>, where pods are created in increasing order (pod-0, then pod-1, etc) and the controller will wait until each pod is ready before continuing. When scaling down, the pods are removed in the opposite order.</p> <p>The alternative policy is Parallel which will create pods in parallel to match the desired scale without waiting, and on scale down will delete all pods at once.</p>
revisionHistoryLimit	No	Integer	<p>RevisionHistoryLimit is the maximum number of revisions that will be maintained in the StatefulSet's revision history. The revision history consists of all revisions not represented by a currently applied StatefulSetSpec version. The default value is 10.</p>
updateStrategy	No	<a href="#">StatefulSetUpdateStrategy</a> object	<p>UpdateStrategy indicates the StatefulSetUpdateStrategy that will be employed to update pods in the StatefulSet when a revision is made to the template.</p>



Parameter	Mandatory	Type	Description
serviceName	Yes	String	ServiceName is the name of the service that governs this StatefulSet. This service must exist before the StatefulSet, and is responsible for the network identity of the set. Pods get DNS/hostnames that follow the pattern: pod-specific-string.serviceName.default.svc.cluster.local where "pod-specific-string" is managed by the StatefulSet controller.
volumeClaimTemplates	No	<b>PersistentVolumeClaim</b> object	VolumeClaimTemplates is a list of claims that pods are allowed to reference. The StatefulSet controller is responsible for mapping network identities to claims in a way that maintains the identity of a pod. Every claim in this list must have at least one matching (by name) volumeMount in one container in the template. A claim in this list takes precedence over any volumes in the template, with the same name.  Currently, only EVS disks can be mounted.
selector	Yes	<b>labelSelector</b> object	Selector is a label query over pods that should match the replica count. If empty, defaulted to labels on the pod template.
template	Yes	<b>PodTemplateSpec</b> object	Template is the object that describes the pod that will be created if insufficient replicas are detected. Each pod stamped out by the StatefulSet will fulfill this Template, but have a unique identity from the rest of the StatefulSet.

**Table 6-210** Data structure of the StatefulSetUpdateStrategy field

Parameter	Mandatory	Type	Description
rollingUpdate	No	<a href="#">RollingUpdateStatefulSetStrategy</a> object	RollingUpdate is used to communicate parameters when Type is RollingUpdateStatefulSetStrategyType.
type	No	String	Type indicates the type of the StatefulSetUpdateStrategy. can be: <ul style="list-style-type: none"> <li>- <b>RollingUpdate</b>: indicates that update will be applied to all Pods in the StatefulSet with respect to the StatefulSet ordering constraints. When a scale operation is performed with this strategy, new Pods will be created from the specification version indicated by the StatefulSet's updateRevision.</li> <li>- <b>OnDelete</b>: triggers the legacy behavior. Version tracking and ordered rolling restarts are disabled. Pods are recreated from the StatefulSetSpec when they are manually deleted. When a scale operation is performed with this strategy, specification version indicated by the StatefulSet's currentRevision.</li> </ul>

**Table 6-211** Data structure of the RollingUpdateStatefulSetStrategy field

Parameter	Mandatory	Type	Description
partition	No	Integer	Partition indicates the ordinal at which the StatefulSet should be partitioned.

**Table 6-212** Data structure of the StatefulSetCondition field

Parameter	Mandatory	Type	Description
type	No	String	Type of the condition. Currently only Ready.
status	No	String	Status of the condition. Can be <b>True</b> , <b>False</b> , or <b>Unknown</b> .
lastTransitionTime	No	String	Last time the condition transitioned from one status to another.
reason	No	String	Unique, one-word, CamelCase reason for the condition's last transition.
message	No	String	Human-readable message indicating details about last transition.

**Table 6-213** Data structure of PersistentVolumeClaim

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
kind	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated.
metadata	<b>ObjectMeta</b> object	Standard object's metadata.
spec	<b>PersistentVolumeClaimSpec</b> object	Spec defines the desired characteristics of a volume requested by a pod author.
status	<b>PersistentVolumeClaimStatus</b> object	Status represents the current information/status of a persistent volume claim. Read-only.

**Table 6-214** Data structure of the PersistentVolumeClaimStatus field

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. <b>ReadWriteOnce</b> - can be mounted read/write mode to exactly 1 host <b>ReadOnlyMany</b> - can be mounted in read-only mode to many hosts <b>ReadWriteMany</b> - can be mounted in read/write mode to many hosts
capacity	No	Array of <b>ResourceName</b> objects	Represents the actual resources of the underlying volume.
phase	No	String	Phase represents the current phase of PersistentVolumeClaim. pending - used for PersistentVolumeClaims that are not yet bound Bound - used for PersistentVolumeClaims that are bound Lost - used for PersistentVolumeClaims that lost their underlying PersistentVolume. The claim was bound to a PersistentVolume and this volume does not exist any longer and all data on it was lost.
conditions	No	Array of <b>PersistentVolumeClaimCondition</b> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to ResizeStarted.

**Table 6-215** Data structure of the PersistentVolumeClaimCondition field

Parameter	Mandatory	Type	Description
type	No	String	Type of the condition. Currently only Ready. <b>Resizing</b> - An user trigger resize of pvc has been started
status	No	String	Status of the condition. Can be <b>True</b> , <b>False</b> , or <b>Unknown</b> .
lastProbeTime	No	String	Last time we probed the condition.
lastTransitionTime	No	String	Last time the condition transitioned from one status to another.
reason	No	String	Unique, one-word, CamelCase reason for the condition's last transition.
message	No	String	Human-readable message indicating details about last transition.

**Table 6-216** Data structure of the PersistentVolumeClaimSpec field

Parameter	Mandatory	Type	Description
volumeName	No	String	VolumeName is the binding reference to the PersistentVolume backing this claim.
accessModes	Yes	Array of strings	AccessModes contains the desired access modes the volume should have. <b>ReadWriteOnce</b> – the volume can be mounted as read-write by a single node <b>ReadOnlyMany</b> – the volume can be mounted read-only by many nodes <b>ReadWriteMany</b> – the volume can be mounted as read-write by many nodes
resources	Yes	<b>ResourceRequirements</b> object	Resources represents the minimum resources the volume should have.

Parameter	Mandatory	Type	Description
selector	No	<a href="#">labelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	Yes	String	Name of the StorageClass required by the claim. The following fields are supported: <ul style="list-style-type: none"> <li>• EVS Currently, EVS disks of high I/O (SAS disks), ultra-high I/O (SSD disks), and common I/O (SATA disks) types are supported.</li> <li>• SFS Currently, nfs-rw is supported.</li> </ul>
volumeMode	No	String	volumeMode defines what type of volume is required by the claim. Can be: <ul style="list-style-type: none"> <li>- <b>Block</b>: the volume will not be formatted with a filesystem and will remain a raw block device</li> <li>- <b>Filesystem</b>: the volume will be or is formatted with a filesystem</li> </ul>

**Table 6-217** Data structure of the apps field in StatefulsetList v1

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
-	No	<a href="#">ListMeta</a> object	-

Parameter	Mandatory	Type	Description
items	Yes	Array of <a href="#">StatefulSet</a> objects	Items is the list of StatefulSets.

**Table 6-218** Data structure of Job

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated.
metadata	Yes	<a href="#">ObjectMeta</a> object	Standard list metadata.
spec	Yes	<a href="#">JobSpec</a> object	Specification of the desired behavior of a job.
status	No	<a href="#">JobStatus</a> object	Current status of a job.

**Table 6-219** Data structure of the JobStatus field

Parameter	Mandatory	Type	Description
active	No	Integer	The number of actively running pods.
completionTime	No	Time	Replicas is the number of actual replicas.
conditions	No	Array of <a href="#">JobCondition</a> objects	The latest available observations of an object's current state. More info:

Parameter	Mandatory	Type	Description
failed	No	Integer	The number of pods which reached phase Failed.
startTime	No	Time	Represents time when the job was acknowledged by the job controller. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
succeeded	No	Integer	The number of pods which reached phase Succeeded.

**Table 6-220** Data structure of the JobSpec field

Parameter	Mandatory	Type	Description
activeDeadlineSeconds	No	Integer	Specifies the duration in seconds relative to the startTime that the job may be active before the system tries to terminate it; value must be positive integer.
backoffLimit	No	Integer	Specifies the number of retries before marking this job failed. Defaults to 6.
priority	No	Integer	Job priority. A larger value indicates a higher priority. The default value is 0. Value range: [-10, 10]
completions	No	Integer	Specifies the desired number of successfully finished pods the job should be run with. Setting to nil means that the success of any pod signals the success of all pods, and allows parallelism to have any positive value. Setting to 1 means that parallelism is limited to 1 and the success of that pod signals the success of the job.



Parameter	Mandatory	Type	Description
manualSelector	No	Boolean	ManualSelector controls generation of pod labels and pod selectors. Leave manualSelector unset unless you are certain what you are doing. When false or unset, the system picks labels unique to this job and appends those labels to the pod template. When true, the user is responsible for picking unique labels and specifying the selector. Failure to pick a unique label may cause this and other jobs to not function correctly. However, You may see manualSelector=true in jobs that were created with the old extensions/v1beta1 API.
parallelism	No	Integer	Specifies the maximum desired number of pods the job should run at any given time. The actual number of pods running in steady state will be less than this number when $(.spec.completions - .status.successful) < .spec.parallelism$ , i.e. when the work left to do is less than max parallelism.
selector	Yes	<b>labelSelector</b> object	Selector is a label query over pods that should match the replica count. If empty, defaulted to labels on the pod template.
template	Yes	<b>PodTemplateSpec</b> object	Template is the object that describes the pod that will be created if insufficient replicas are detected. Each pod stamped out by the StatefulSet will fulfill this Template, but have a unique identity from the rest of the StatefulSet.

**Table 6-221** Data structure of the JobCondition field

Parameter	Mandatory	Type	Description
lastProbeTime	No	String	Last time the condition was checked.
lastTransitionTime	No	String	Last time the condition transitioned from one status to another.
message	No	String	Human-readable message indicating details about last transition.
reason	No	String	(Brief) Reason for the condition's last transition.
status	No	String	Status of the condition, <b>one of True, False, Unknown.</b>
type	No	String	Type of job condition, <b>Complete or Failed.</b>

**Table 6-222** Data structure of the core field in Service v1

Parameter	Mandatory	Type	Description
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. The value of this parameter is <b>Service</b> .
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. The value of this parameter is <b>v1</b> .
metadata	Yes	<b>ObjectMeta</b> object	-

Parameter	Mandatory	Type	Description
spec	Yes	<a href="#">ServiceSpec</a> object	-
status	No	<a href="#">ServiceStatus</a> object	-

**Table 6-223** Data structure of the ServiceSpec field

Parameter	Mandatory	Type	Description
ports	Yes	Array of <a href="#">ServicePort</a> objects	The list of ports that are exposed by this service.
selector	No	Object	This service will route traffic to pods having labels matching this selector. Label keys and values that must match in order to receive traffic for this service. If empty, all pods are selected, if not specified, endpoints must be manually specified.
clusterIP	No	String	ClusterIP is the IP address of the service and is usually assigned randomly by the master. If an address is specified manually and is not in use by others, it will be allocated to the service; otherwise, creation of the service will fail. This field <b>cannot be changed through updates. Valid values are "None", empty string (""), or a valid IP address.</b> "None" can be specified for headless services when proxying is not required. Only applies to types <b>ClusterIP, NodePort, and LoadBalancer</b> . Ignored if type is ExternalName.

Parameter	Mandatory	Type	Description
type	No	String	<p>Type determines how the Service is exposed. <b>Defaults to ClusterIP. Valid options are ExternalName, ClusterIP and LoadBalancer.</b></p> <p><b>"ExternalName"</b> maps to the specified externalName.</p> <p><b>"ClusterIP"</b> allocates a cluster-internal IP address for load-balancing to endpoints. Endpoints are determined by the selector or if that is not specified, by manual construction of an Endpoints object. If clusterIP is "None", no virtual IP is allocated and the endpoints are published as a set of endpoints rather than a stable IP.</p> <p><b>"LoadBalancer"</b> builds on NodePort and creates an external load-balancer (if supported in the current cloud) which routes to the clusterIP.</p> <p><b>NOTE</b> The nodePort service is supported in the community version but not supported in CCI scenarios.</p>
externalIPs	No	Array of strings	<p>ExternalIPs is a list of IP addresses for which nodes in the cluster will also accept traffic for this service. These IPs are not managed by Kubernetes. The user is responsible for ensuring that traffic arrives at a node with this IP. A common example is external load-balancers that are not part of the Kubernetes system.</p>

Parameter	Mandatory	Type	Description
externalTrafficPolicy	No	String	<p>ExternalTrafficPolicy denotes if this Service desires to route external traffic to node-local or cluster-wide endpoints.</p> <p><b>valid values are "Local" and "Cluster"</b></p> <ul style="list-style-type: none"> <li>- <b>"Local"</b> preserves the client source IP and avoids a second hop for LoadBalancer and Nodeport type services, but risks potentially imbalanced traffic spreading.</li> <li>- <b>"Cluster"</b> obscures the client source IP and may cause a second hop to another node, but should have good overall load-spreading.</li> </ul>
healthCheckNodePort	No	Integer	<p>HealthCheckNodePort specifies the healthcheck nodePort for the service. If not specified, HealthCheckNodePort is created by the service api backend with the allocated nodePort. Will use user-specified nodePort value if specified by the client. <b>Only effects when Type is set to LoadBalancer and ExternalTrafficPolicy is set to Local.</b></p>
externalName	No	String	<p>ExternalName is the external reference that kubedns or equivalent will return as a CNAME record for this service. No proxying will be involved. Must be a valid DNS name and requires Type to be ExternalName.</p>
sessionAffinity	No	String	<p>Used to maintain session affinity. Enable client IP based session affinity.</p> <p><b>Must be ClientIP or None.</b></p> <p><b>Defaults to None.</b></p>

Parameter	Mandatory	Type	Description
loadBalancerIP	No	String	<b>Only applies to Service Type: LoadBalancer</b> LoadBalancer will get created with the IP specified in this field. This feature depends on whether the underlying cloud-provider supports specifying the loadBalancerIP when a load balancer is created. This field will be ignored if the cloud-provider does not support the feature.
loadBalancerSourceRanges	No	Array of strings	Optional: If specified and supported by the platform, this will restrict traffic through the cloud-provider. load-balancer will be restricted to the specified client IPs. This field will be ignored if the cloud-provider does not support the feature.
publishNotReadyAddresses	No	Boolean	PublishNotReadyAddresses, when set to true, indicates that DNS implementations must publish the notReadyAddresses of subsets for the Endpoints associated with the Service. The default value is false. The primary use case for setting this field is to use a StatefulSet's Headless Service to propagate SRV records for its Pods without respect to their readiness for purpose of peer discovery. This field will replace the service.alpha.kubernetes.io/tolerate-unready-endpoints when that annotation is deprecated and all clients have been converted to use this field.
sessionAffinityConfig	No	<a href="#">SessionAffinityConfig</a> object	SessionAffinityConfig contains the configurations of session affinity.

**Table 6-224** Data structure of the ServiceStatus field

Parameter	Mandatory	Type	Description
loadBalancer	No	<b>loadBalancerStatus</b> object	LoadBalancer contains the current status of the load-balancer, if one is present

**Table 6-225** Data structure of the ServicePort field

Parameter	Mandatory	Type	Description
name	No	String	The name of this port within the service. This must be a DNS_LABEL. All ports within a ServiceSpec must have unique names. This maps to the 'Name' field in EndpointPort objects. Optional if only one ServicePort is defined on this service. Value length: 0 character < String length ≤ 63 characters. The string must comply with regular expression [a-z0-9]([-a-z0-9]*[a-z0-9])?.
protocol	No	String	The IP protocol for this port. Supports "TCP" and "UDP". This parameter can be set to: <ul style="list-style-type: none"> <li>• <b>TCP</b></li> <li>• <b>UDP</b></li> </ul>
port	Yes	Integer	The port that will be exposed by this service. Value range: (0,65535].

Parameter	Mandatory	Type	Description
targetPort	No	String	Number or name of the port to access on the pods targeted by the service. Number must be in the range 1 to 65535. Name must be an IANA_SVC_NAME. If this is a string, it will be looked up as a named port in the target Pod's container ports. If this is not specified, the value of Port is used (an identity map). Defaults to the service port. <b>Value range: (0,65535].</b>
nodePort	No	Integer	The port on each node on which this service is exposed when type=NodePort or LoadBalancer. Usually assigned by the system. If specified, it will be allocated to the service if unused or else creation of the service will fail. Default is to auto-allocate a port if the ServiceType of this Service requires one. <b>Value range: [30000,32767].</b>

**Table 6-226** Data structure of loadBalancerStatus

Parameter	Mandatory	Type	Description
ingress	No	Array of <b>LoadBalance</b> <b>Ingress</b> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 6-227** Data structure of the LoadBalancerIngress field

Parameter	Mandatory	Type	Description
ip	No	String	IP is set for load-balancer ingress points that are IP based.



Parameter	Mandatory	Type	Description
hostname	No	String	Hostname is set for load-balancer ingress points that are DNS based.

**Table 6-228** Data structure of the SessionAffinityConfig field

Parameter	Mandatory	Type	Description
clientIP	No	<b>ClientIPConfig</b> object	ClientIP contains the configurations of Client IP based session affinity.

**Table 6-229** Data structure of the ClientIPConfig field

Parameter	Mandatory	Type	Description
timeoutSeconds	No	Integer	TimeoutSeconds specifies the seconds of ClientIP type session sticky time. The value must be >0 && <=86400(for 1 day) if ServiceAffinity == "ClientIP". Default value is 10800(for 3 hours).

**Table 6-230** Data structure of ServiceList

Parameter	Type	Description
kind	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
metadata	<b>ListMeta</b> object	Standard list metadata.
items	Array of <b>Service</b> objects	List of services.

**Table 6-231** Data structure of extensions in Ingress v1 beta1

Parameter	Mandatory	Type	Description
apiVersion	No	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
kind	No	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated.
metadata	No	<a href="#">ObjectMeta</a> object	Standard object's metadata.
spec	No	<a href="#">IngressSpec</a> object	Spec is the desired state of the Ingress.
status	No	IngressStatus	Status is the current state of the Ingress.

**Table 6-232** Data structure of the IngressSpec field

Parameter	Mandatory	Type	Description
backend	No	<a href="#">IngressBackend</a> object	A default backend capable of servicing requests that do not match any rule. At least one of <i>backend</i> or <i>rules</i> must be specified. This field is optional to allow the loadbalancer controller or defaulting logic to specify a global default.
rules	No	Array of <a href="#">IngressRule</a> objects	A list of host rules used to configure the Ingress. If unspecified, or no rule matches, all traffic is sent to the default backend.

Parameter	Mandatory	Type	Description
tls	No	Array of <b>IngressTLS</b> objects	TLS configuration. Currently the Ingress only supports a single TLS port, 443. If multiple members of this list specify different hosts, they will be multiplexed on the same port according to the hostname specified through the SNI TLS extension, if the ingress controller fulfilling the ingress supports SNI.

**Table 6-233** Data structure of the IngressStatus field

Parameter	Mandatory	Type	Description
loadBalancer	No	<b>loadBalancer Status</b> object	LoadBalancer contains the current status of the load-balancer.

**Table 6-234** Data structure of the IngressBackend field

Parameter	Mandatory	Type	Description
serviceName	No	String	Specifies the name of the referenced service.
servicePort	No	String	Specifies the port of the referenced service.

**Table 6-235** Data structure of IngressTLS

Parameter	Mandatory	Type	Description
hosts	No	Array of strings	Hosts are a list of hosts included in the TLS certificate. The values in this list must match the name/s used in the tlsSecret. Defaults to the wildcard host setting for the loadbalancer controller fulfilling this Ingress, if left unspecified.

Parameter	Mandatory	Type	Description
secretName	No	String	SecretName is the name of the secret used to terminate SSL traffic on 443. Field is left optional to allow SSL routing based on SNI hostname alone. If the SNI host in a listener conflicts with the "Host" header field used by an IngressRule, the SNI host is used for termination and value of the Host header is used for routing

**Table 6-236** Data structure of IngressRule

Parameter	Mandatory	Type	Description
host	No	String	Host is the fully qualified domain name of a network host, as defined by RFC 3986. Note the following deviations from the "host" part of the URI as defined in the RFC: 1. IPs are not allowed. Currently an IngressRuleValue can only apply to the IP in the Spec of the parent Ingress. 2. The : delimiter is not respected because ports are not allowed. Currently the port of an Ingress is implicitly :80 for http and :443 for https. Both these may change in the future. Incoming requests are matched against the host before the IngressRuleValue. If the host is unspecified, the Ingress routes all traffic based on the specified IngressRuleValue
http	No	IngressRuleValue object	IngressRuleValue represents a rule to route requests for this IngressRule. If unspecified, the rule defaults to an http catch-all. Whether that sends just traffic matching the host to the default backend or all traffic to the default backend, is left to the controller fulfilling the Ingress. Http is currently the only supported IngressRuleValue.

**Table 6-237** Data structure of IngressRuleValue

Parameter	Mandatory	Type	Description
http	No	HTTPIngressRuleValue object	HTTP ingress rule.

**Table 6-238** Data structure of HTTPIngressRuleValue

Parameter	Mandatory	Type	Description
paths	No	Array of <a href="#">HTTPIngressPath</a> objects	A collection of paths that map requests to backends.

**Table 6-239** Data structure of HTTPIngressPath

Parameter	Mandatory	Type	Description
path	No	String	Path is an extended POSIX regex as defined by IEEE Std 1003.1, (i.e this follows the egrep/unix syntax, not the perl syntax) matched against the path of an incoming request. Currently it can contain characters disallowed from the conventional "path" part of a URL as defined by RFC 3986. Paths must begin with a '/'. If unspecified, the path defaults to a catch all sending traffic to the backend
backend	Yes	<a href="#">IngressBackend</a> object	Backend defines the referenced service endpoint to which the traffic will be forwarded to
property	Yes	Object	Extension property on the path

**Table 6-240** Data structure of the loadBalancerStatus field

Parameter	Mandatory	Type	Description
ingress	No	Array of <a href="#">LoadBalancerIngress</a> objects	Ingress is a list containing ingress points for the load-balancer. Traffic intended for the service should be sent to these ingress points.

**Table 6-241** Data structure of IngressList

Parameter	Type	Description
kind	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
metadata	<a href="#">ListMeta</a> object	Standard list metadata.
items	Array of <a href="#">Ingress v1beta1 extensions</a> objects	List of Ingress.

**Table 6-242** Request parameters of core in Configmap v1

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated.
metadata	Yes	<a href="#">ObjectMeta</a> object	Standard list metadata.
data	Yes	Object	Data contains the configuration data. Each key must consist of alphanumeric characters, '-', '_' or '!'. <b>The value cannot exceed 512 characters.</b>

**Table 6-243** Data structure of ConfigmapList

Parameter	Type	Description
kind	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
metadata	ListMeta object	Standard list metadata.
items	Array of Configmap v1 core objects	List of ConfigMaps.

**Table 6-244** Data structure of core in Secret v1

Parameter	Mandatory	Type	Description
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. The value of this parameter is <b>Secret</b> .
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. The value of this parameter is <b>v1</b> .
metadata	Yes	ObjectMeta object	-
data	No	Object	Data contains the secret data. Each key must consist of alphanumeric characters, '-', '_' or '!'. The serialized form of the secret data is a <b>base64 encoded string</b> , representing the arbitrary (possibly non-string) data value here

Parameter	Mandatory	Type	Description
stringData	No	Object	StringData allows specifying non-binary secret data in string form. It is provided as a write-only convenience method. All keys and values are merged into the data field on write, overwriting any existing values. It is never output when reading from the API
type	No	String	Used to facilitate programmatic handling of secret data. The primitive k8s supports the following secret types, for details, see <a href="#">Table 6-245</a> . <ul style="list-style-type: none"> <li>• <b>Opaque</b></li> <li>• <b>kubernetes.io/dockercfg</b></li> <li>• <b>kubernetes.io/dockerconfigjson</b></li> <li>• <b>kubernetes.io/tls</b></li> </ul>

**Table 6-245** Key restrictions of data for different types of secrets

Secret Type	Required Key	Description
Opaque	N/A	Secret type Opaque is the default; arbitrary user-defined data.
kubernetes.io/dockercfg	.dockercfg	Secret type kubernetes.io/dockercfg contains a dockercfg file that follows the same format rules as ~/.dockercfg.
kubernetes.io/tls	tls.key tls.crt	Secret type kubernetes.io/tls contains information about a TLS client or server secret. It is primarily used with TLS termination of the Ingress resource, but may be used in other types.
kubernetes.io/dockerconfigjson	.dockerconfigjson	SecretTypeDockerConfigJson contains a dockercfg file that follows the same format rules as ~/.docker/config.json



**Table 6-246** Data structure of ServiceList

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
kind	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated.
metadata	<a href="#">ListMeta</a> object	Standard list metadata.
items	Array of <a href="#">Secret v1 core</a> objects	List of Secrets.

**Table 6-247** Data structure of core in PersistentVolumeClaimList v1

Parameter	Type	Description
kind	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
metadata	<a href="#">ListMeta</a> object	Standard list metadata.
items	Array of <a href="#">PersistentVolumeClaim</a> object	A list of persistent volume claims.

**Table 6-248** Data structure of core in Event v1

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
kind	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
count	integer	The number of times this event has occurred.
firstTimestamp	Time	The time at which the event was first recorded. (Time of server receipt is in TypeMeta.)
involvedObject	<b>involvedObject</b> object	The object that this event is about.
lastTimestamp	Time	The time at which the most recent occurrence of this event was recorded.
message	String	A human-readable description of the status of this operation.
metadata	<b>metadata</b> object	Standard object's metadata.
reason	String	This should be a short, machine understandable string that gives the reason for the transition into the object's current status.
source	<b>EventSource</b> object	The component reporting this event. Should be a short machine understandable string.
type	String	Type of this event (Normal, Warning), new types could be added in the future
eventTime	time.Time	Time when this Event was first observed.
Series	<b>EventSeries</b> object	Data about the Event series this event represents or nil if it is a singleton Event.
action	String	What action was taken/failed regarding to the Regarding object.
related	<b>ObjectReference</b> object	Optional secondary object for more complex actions.
reportingComponent	String	Name of the controller that emitted this Event, e.g. 'kubernetes.io/kubelet'

Parameter	Type	Description
reportingInstance	String	ID of the controller instance, e.g. `kubelet-xyzf`.

**Table 6-249** Data structure of the involvedObject field

Parameter	Type	Description
kind	String	Kind of the referent.
namespace	String	Namespace of the referent.
name	String	Name of the referent.
uid	String	UID of the referent.
apiVersion	String	API version of the referent.
resourceVersion	String	Specific resourceVersion to which this reference is made.
fieldPath	String	If referring to a piece of an object instead of an entire object, this string should contain a valid JSON/Go field access statement, such as <code>desiredState.manifest.containers[2]</code> . For example, if the object reference is to a container within a pod, this would take on a value like: <code>"spec.containers{name}"</code> (where "name" refers to the name of the container that triggered the event) or if no container name is specified <code>"spec.containers[2]"</code> (container with index 2 in this pod). This syntax is chosen only to have some well-defined way of referencing a part of an object.

**Table 6-250** Data structure of the EventSource field

Parameter	Type	Description
component	String	Component from which the event is generated.
host	String	Node name on which the event is generated.

**Table 6-251** Data structure of EventSeries

Parameter	Type	Description
count	<i>integer</i>	Number of occurrences in this series up to the last heartbeat time
lastObservedTime	time.Time	Time of the last occurrence observed
state	String	State of this Series: <b>Ongoing</b> , <b>Finished</b> , or <b>Unknown</b>

**Table 6-252** Data structure of the ObjectReference field

Parameter	Type	Description
apiVersion	String	API version of the referent.
fieldPath	String	If referring to a piece of an object instead of an entire object, this string should contain a valid JSON/Go field access statement, such as <code>desiredState.manifest.containers[2]</code> . For example, if the object reference is to a container within a pod, this would take on a value like: <code>"spec.containers{name}"</code> (where "name" refers to the name of the container that triggered the event) or if no container name is specified <code>"spec.containers[2]"</code> (container with index 2 in this pod). This syntax is chosen only to have some well-defined way of referencing a part of an object.
kind	String	Kind of the referent.
name	String	Name of the referent.
namespace	String	Namespace of the referent.
resourceVersion	String	Specific resourceVersion to which this reference is made, if any.
uid	String	UID of the referent.

**Table 6-253** Data structure of core in EventList v1

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
items	Array of <b>Event v1 core</b> objects	List of services.
kind	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
metadata	<b>ListMeta</b> object	Standard list metadata.

**Table 6-254** Data structure of LocalDirVolumeSource

Parameter	Type	Description
sizeLimit	Object	Storage space of the localDir in use.

**Table 6-255** Data structure of emptyDir

Parameter	Type	Description
sizeLimit	integer	Storage space of the emptyDir in use. Value range: (0, 2147483647] Unit: Gi
medium	String	Medium type. The options are as follows: <ul style="list-style-type: none"> <li>• <b>LocalVolume</b>: ultra-high I/O EVS disks</li> <li>• <b>LocalSSD</b>: local SSDs</li> </ul> <b>NOTE</b> If this parameter is not set, ultra high I/O EVS disks are used by default.

**Table 6-256** Data structure of Endpoints

Parameter	Type	Description
kind	String	String kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. The value of this parameter is <b>Secret</b> .
apiVersion	String	String APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. The value of this parameter is <b>v1</b> .
metadata	<b>ObjectMeta</b> object	-
subsets	Array of <b>EndpointSubset</b> objects	The set of all endpoints is the union of all subsets. Addresses are placed into subsets according to the IPs they share. A single address with multiple ports, some of which are ready and some of which are not (because they come from different containers) will result in the address being displayed in different subsets for the different ports. No address will appear in both Addresses and NotReadyAddresses in the same subset. Sets of addresses and ports that comprise a service.

**Table 6-257** Data structure of EndpointSubset

Parameter	Type	Description
addresses	Array of <b>EndpointAddress</b> objects	IP addresses which offer the related ports that are marked as ready. These endpoints should be considered safe for load balancers and clients to utilize.

Parameter	Type	Description
notReadyAddresses	Array of <b>EndpointAddress</b> objects	IP addresses which offer the related ports but are not currently marked as ready because they have not yet finished starting, have recently failed a readiness check, or have recently failed a liveness check.
ports	Array of <b>EndpointPort</b> objects	Port numbers available on the related IP addresses.

**Table 6-258** Data structure of EndpointAddress

Parameter	Type	Description
ip	String	The IP of this endpoint. May not be loopback (127.0.0.0/8), link-local (169.254.0.0/16), or link-local multicast (224.0.0.0/24) IPv6 is also accepted but not fully supported on all platforms. Also, certain kubernetes components, like kube-proxy, are not IPv6 ready
hostname	String	The Hostname of this endpoint
nodename	String	Optional: Node hosting this endpoint. This can be used to determine endpoints local to a node.
targetRef	<b>ObjectReference</b> object	Reference to object providing the endpoint.
nodeAvailableZone	String	Optional: The availability zone of the endpoint's host node

**Table 6-259** Data structure of EndpointPort

Parameter	Type	Description
name	String	The name of this port (corresponds to ServicePort.Name). Must be a DNS_LABEL. Optional only if one port is defined.
port	Integer	The port number of the endpoint.
protocol	String	The IP protocol for this port. <b>Must be UDP or TCP.</b> Default is TCP

**Table 6-260** Data structure of core in EndpointsList v1

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
items	Array of <a href="#">Endpoints</a> objects	List of endpoints
kind	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
metadata	<a href="#">ListMeta</a> object	Standard list metadata.

**Table 6-261** Data structure of ReplicaSet

Parameter	Type	Description
kind	String	String kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. The value of this parameter is <b>Secret</b> .



Parameter	Type	Description
apiVersion	String	String APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. The value of this parameter is <b>v1</b> .
metadata	<b>ObjectMeta</b> object	-
spec	<b>ReplicaSetSpec</b> object	Spec defines the specification of the desired behavior of the ReplicaSet.
status	<b>ReplicaSetStatus</b> object	Status is the most recently observed status of the ReplicaSet. This data may be out of date by some window of time. Populated by the system. Read-only.

**Table 6-262** Data structure of ReplicaSetSpec

Parameter	Type	Description
replicas	Integer	Replicas is the number of desired replicas. This is a pointer to distinguish between explicit zero and unspecified. Defaults to 1.
minReadySeconds	Integer	Minimum number of seconds for which a newly created pod should be ready without any of its container crashing, for it to be considered available. Defaults to 0 (pod will be considered available as soon as it is ready)
selector	<b>LabelSelector</b> object	Selector is a label query over pods that should match the replica count. Label keys and values that must match in order to be controlled by this replica set. It must match the pod template's labels.
template	<b>PodTemplateSpec</b> object	Template is the object that describes the pod that will be created if insufficient replicas are detected.

**Table 6-263** Data structure of ReplicaSetStatus

Parameter	Type	Description
replicas	Integer	Replicas is the most recently observed number of replicas.
fullyLabeledReplicas	Integer	The number of pods that have labels matching the labels of the pod template of the replicaset.
readyReplicas	Integer	The number of ready replicas for this replica set.
availableReplicas	Integer	The number of available replicas (ready for at least minReadySeconds) for this replica set.
observedGeneration	Integer	ObservedGeneration reflects the generation of the most recently observed ReplicaSet.
conditions	ReplicaSetCondition object	Represents the latest available observations of a replica set's current state.

**Table 6-264** Data structure of ReplicaSetCondition

Parameter	Type	Description
type	String	Type of replica set condition. Available values: -- ReplicaFailure: ReplicaSetReplicaFailure is added in a replica set when one of its pods fails to be created due to insufficient quota, limit ranges, pod security policy, node selectors, etc. or deleted due to kubelet being down or finalizers are failing.
status	String	Status of the condition, one of True, False, Unknown.
lastTransitionTime	Object	The last time the condition transitioned from one status to another.
reason	String	The reason for the condition's last transition.
message	String	A human readable message indicating details about the transition.

**Table 6-265** Data structure of core in ReplicaSetList v1

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
items	Array of <a href="#">ReplicaSet</a> objects	List of endpoints
kind	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
metadata	<a href="#">ListMeta</a> object	Standard list metadata.

**Table 6-266** Data structure of Volcano Job batch\_v1alpha1

Parameter	Mandator y	Type	Description
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#resources">https://git.k8s.io/community/contributors/devel/api-conventions.md#resources</a> .
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds">https://git.k8s.io/community/contributors/devel/api-conventions.md#types-kinds</a> .

Parameter	Mandatory	Type	Description
metadata	Yes	<a href="#">ObjectMeta</a> object	Standard object's metadata. More info: <a href="https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata">https://git.k8s.io/community/contributors/devel/api-conventions.md#metadata</a> .
spec	Yes	<a href="#">VolcanoJobSpec</a> object	Specification of the desired behavior of a cron job, including the minAvailable.
status	No	<a href="#">VolcanoJobStatus</a> object	Current status of Job.

**Table 6-267** Data structure of the VolcanoJobSpec field

Parameter	Mandatory	Type	Description
maxRetry	No	Integer	The limit for retrying submitting job. The default value is 3.
minAvailable	Yes	Integer	The minimal available pods to run for this Job. The value of this parameter is greater than 0.
plugins	No	<a href="#">VolcanoPlugin</a> object	Enabled task plugins when creating job.
policies	No	Array of <a href="#">VolcanoJobPolicy</a> objects	Specifies the default lifecycle of tasks.
queue	No	String	The name of the queue on which job should be created.
schedulerName	No	String	SchedulerName is the default value of `tasks.template.spec.schedulerName`.
tasks	Yes	Array of <a href="#">VolcanoJobTask</a> objects	Tasks specifies the task specification of Job.
volumes	No	Array of <a href="#">VolcanoJobVolume</a> objects	The volumes for Job.

**Table 6-268** Data structure of the VolcanoJobStatus field

Parameter	Mandatory	Type	Description
ControlledResources	Yes	Object	All of the resources that are controlled by this job. { "plugin-env": "env", "plugin-ssh": "ssh", "plugin-svc": "svc" }.
Succeeded	No	Integer	The number of pods which reached phase Succeeded.
failed	No	Integer	The number of pods which reached phase Failed.
minAvailable	Yes	Integer	The minimal available pods to run for this Job.
pending	No	Integer	The number of pending pods.
retryCount	No	Integer	The number that volcano retried to submit the job.
running	No	Integer	The number of running pods.
version	No	Integer	Job's current version.
state	Yes	<a href="#">VolcanoJobStatusState</a> object	Current state of Job.

**Table 6-269** Data structure of the VolcanoJobPolicy field

Parameter	Mandatory	Type	Description
action	Yes	String	The action that will be taken to the PodGroup according to Event. One of \"Restart\", \"None\". Default to None.
event	Yes	String	The Event recorded by scheduler; the controller takes actions according to this Event.
timeout	No	Object	Timeout is the grace period for controller to take actions. Default to nil (take action immediately).

**Table 6-270** Data structure of the VolcanoJobTask field

Parameter	Mandatory	Type	Description
name	Yes	String	Name specifies the name of tasks.
policies	No	<a href="#">VolcanoJobPolicy</a> object	Specifies the lifecycle of task.
replicas	No	Integer	Replicas specifies the replicas of this TaskSpec in Job.
template	No	<a href="#">PodTemplateSpec</a> object	Specifies the pod that will be created for this TaskSpec when executing a Job.

**Table 6-271** Data structure of the VolcanoJobVolume field

Parameter	Mandatory	Type	Description
mountPath	Yes	String	Path within the container at which the volume should be mounted. Must not contain '!'. Must not contain '!'.
volumeClaim	No	<a href="#">VolcanoTaskVolumeClaimSpec</a> object	VolumeClaim defines the PVC used by the VolumeMount.
volumeClaimName	No	String	The name of the volume claim.

**Table 6-272** Data structure of the VolcanoJobStatusState field

Parameter	Mandatory	Type	Description
message	No	String	Human-readable message indicating details about last transition.
phase	Yes	String	The phase of Job.
reason	No	String	Unique, one-word, CamelCase reason for the condition's last transition.

**Table 6-273** Data structure of the VolcanoTaskVolumeClaimSpec field

Parameter	Mandatory	Type	Description
accessModes	Yes	Array of strings	AccessModes contains the desired access modes the volume should have. <b>ReadWriteOnce</b> – the volume can be mounted as read-write by a single node <b>ReadOnlyMany</b> – the volume can be mounted read-only by many nodes <b>ReadWriteMany</b> – the volume can be mounted as read-write by many nodes
resources	Yes	<b>ResourceRequirements</b> object	Resources represents the minimum resources the volume should have.
storageClassName	Yes	String	Name of the StorageClass required by the claim. The following fields are supported: <ul style="list-style-type: none"> <li>• EVS Currently, EVS disks of high I/O (SAS disks), ultra-high I/O (SSD disks), and common I/O (SATA disks) types are supported.</li> <li>• SFS Currently, nfs-rw is supported.</li> </ul>

**Table 6-274** Data structure of the VolcanoPlugin field

Parameter	Mandatory	Type	Description
env	No	Array of strings	Set VK_TASK_INDEX to each container, which is an index for giving the identity to container.
svc	No	Array of strings	Create Service and *.host to enable pod communication.

Parameter	Mandatory	Type	Description
ssh	No	Array of strings	Sign in ssh without password, e.g. use command mpirun or mpiexec.  The value <b>no-root</b> indicates logging in as a non-root user using SSH.

**Table 6-275** Data structure of TFJob kubeflow\_v1

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.  The value of this parameter is <b>v1</b> .
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.  The value of this parameter is <b>TFJob</b> .
metadata	Yes	<b>ObjectMeta</b> object	Standard object's metadata.
spec	Yes	<b>TFJobSpec</b> object	Specification of the desired behavior of a TFJob.
status	No	<b>JobStatus</b> object	Current status of TFJob.

**Table 6-276** Data structure of the TFJobSpec field

Parameter	Mandatory	Type	Description
activeDeadlineSecond	No	Integer	Specifies the duration in seconds relative to the startTime that the job may be active before the system tries to terminate it; value must be positive integer.



Parameter	Mandatory	Type	Description
backoffLimit	No	Integer	Optional number of retries before marking this job failed.
cleanPodPolicy	No	CleanPodPolicy object	CleanPodPolicy defines the policy to kill pods after TFJob is succeeded. Default to Running.
ttlSecondsAfterFinished	No	Integer	TTLSecondsAfterFinished is the TTL to clean up tf-jobs (temporary before kubernetes adds the cleanup controller). It may take extra ReconcilePeriod seconds for the cleanup, since reconcile gets called periodically.
tfReplicaSpecs	Yes	Array of ReplicaSpec objects	TFReplicaSpecs is map of TFReplicaType and ReplicaSpec specifies the TF replicas to run. For example, <pre>{   "PS": ReplicaSpec,   "Worker": ReplicaSpec, }</pre>

**Table 6-277** Available values of the CleanPodPolicy field

Available Value	Description
All	When the job is finished, kill all pods that the job created.
Running	When the job is finished, kill pods that the job created and is in running phase.
None	When the job is finished, do not kill any pods that the job created.

**Table 6-278** Available values of the TFReplicaType field

Avai labl e Val ue	Description
PS	PS is the type for parameter servers of distributed TensorFlow.
Wor ker	Worker is the type for workers of distributed TensorFlow. This is also used for non-distributed TensorFlow.
Chie f	Chief is the type for chief worker of distributed TensorFlow. If there is "chief" replica type, it's the "chief worker". Else, worker:0 is the chief worker.
Eval uato r	Evaluator is the type for evaluation replica in TensorFlow.

**Table 6-279** Data structure of the ReplicaSpec field

Para mete r	Ma nda tory	Type	Description
replic as	No	Integer	Replicas is the desired number of replicas of the given template. If unspecified, defaults to 1.
temp late	Yes	<a href="#">PodTe mplate Spec</a> object	Template is the object that describes the pod that will be created for this replica. RestartPolicy in PodTemplateSpec will be overridden by RestartPolicy in ReplicaSpec.
resta rtPoli cy	No	String	Restart policy for all replicas within the job. One of Always, OnFailure, Never and ExitCode. Default to Never.

**Table 6-280** Data structure of the JobStatus field

Parameter	Mandatory	Type	Description
conditions	No	Array of <b>JobCondition</b> objects	Conditions is an array of current observed job conditions.
replicaStatuses	No	Array of <b>ReplicaStatus</b> objects	ReplicaStatuses is map of ReplicaType and ReplicaStatus, specifies the status of each replica.
startTime	No	Time	Represents time when the job was acknowledged by the job controller. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
completionTime	No	Time	Represents time when the job was completed. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.
lastReconcileTime	No	Time	Represents last time when the job was reconciled. It is not guaranteed to be set in happens-before order across separate operations. It is represented in RFC3339 form and is in UTC.

**Table 6-281** Data structure of the JobCondition field

Parameter	Mandatory	Type	Description
type	No	String	Type of job condition. <b>NOTE</b> Job states include: -Created: means the job has been accepted by the system, but one or more of the pods/services has not been started. This includes time before pods being scheduled and launched. -Running: means all sub-resources (e.g. services/pods) of this job have been successfully scheduled and launched. The training is running without error. -Restarting: means one or more sub-resources (e.g. services/pods) of this job reached phase failed but maybe restarted according to its restart policy which specified by user in v1.PodTemplateSpec. The training is freezing/pending. -Succeeded: means all sub-resources (e.g. services/pods) of this job reached phase have terminated in success. The training is complete without error. -Failed: means one or more sub-resources (e.g. services/pods) of this job reached phase failed with no restarting. The training has failed its execution.
status	No	String	Status of the condition, one of True, False, Unknown.
reason	No	String	(Brief) Reason for the condition's last transition.
message	No	String	Human readable message indicating details about last transition.
lastUpdateTime	No	Time	The last time this condition was updated.
lastTransitionTime	No	Time	Last time the condition transitioned from one status to another.

**Table 6-282** Data structure of the ReplicaStatus field

Parameter	Mandatory	Type	Description
active	No	Integer	The number of actively running pods.
succeeded	No	Integer	The number of pods which reached phase Succeeded.
failed	No	Integer	The number of pods which reached phase Failed.

**Table 6-283** Data structure of MXJob kubeflow\_v1

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. The value of this parameter is <b>v1</b> .
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. The value of this parameter is <b>MXJob</b> .
metadata	Yes	<b>Object Meta</b> object	Standard object's metadata.
spec	Yes	MXJob Spec	Specification of the desired behavior of an MXJob.
status	No	<b>JobStatus</b> object	Current status of MXJob.

**Table 6-284** Data structure of the MXJobSpec field

Parameter	Mandatory	Type	Description
activeDeadlineSecond	No	Integer	Specifies the duration in seconds relative to the startTime that the job may be active before the system tries to terminate it; value must be positive integer.
backoffLimit	No	Integer	Optional number of retries before marking this job failed.
cleanPodPolicy	No	CleanPodPolicy object	CleanPodPolicy defines the policy to kill pods after TFJob is succeeded. Default to Running.
ttlSecondsAfterFinished	No	Integer	TTLSecondsAfterFinished is the TTL to clean up tf-jobs (temporary before kubernetes adds the cleanup controller). It may take extra ReconcilePeriod seconds for the cleanup, since reconcile gets called periodically.
mxReplicaSpecs	Yes	Array of ReplicaSpec objects	MXReplicaSpecs is map of MXReplicaType and MXReplicaSpec specifies the MX replicas to run. For example, { "Scheduler": MXReplicaSpec, "Server": MXReplicaSpec, "Worker": MXReplicaSpec, }

**Table 6-285** Available values of the MXReplicaType field

Available Value	Description
Scheduler	Scheduler is the type for scheduler replica in MXNet.
Worker	Worker is the type for workers of distributed MXNet.

Available Value	Description
Server	Server is the type for parameter servers of distributed MXNet.

**Table 6-286** Data structure of PyTorchJob kubeflow\_v1

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. The value of this parameter is <b>v1</b> .
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. The value of this parameter is <b>PyTorchJob</b> .
metadata	Yes	<b>ObjectMeta</b> object	Standard object's metadata.
spec	Yes	<b>PyTorchJobSpec</b> object	Specification of the desired behavior of a pytorchjob.
status	No	<b>JobStatus</b> object	Current status of pytorchJob.

**Table 6-287** Data structure of the PyTorchJobSpec field

Parameter	Mandatory	Type	Description
activeDeadlineSecond	No	Integer	Specifies the duration in seconds relative to the startTime that the job may be active before the system tries to terminate it; value must be positive integer.
backoffLimit	No	Integer	Optional number of retries before marking this job failed.
cleanPodPolicy	No	CleanPodPolicy object	CleanPodPolicy defines the policy to kill pods after TFJob is succeeded. Default to Running.
ttlSecondsAfterFinished	No	Integer	TTLSecondsAfterFinished is the TTL to clean up tf-jobs (temporary before kubernetes adds the cleanup controller). It may take extra ReconcilePeriod seconds for the cleanup, since reconcile gets called periodically.
ReplicaSpecs	Yes	Array of ReplicaSpec objects	A map of PyTorchReplicaType (type) to ReplicaSpec (value). Specifies the PyTorch cluster configuration. For example, { "Master": PyTorchReplicaSpec, "Worker": PyTorchReplicaSpec, }

**Table 6-288** Available values of the PytorchReplicaType field

Available Value	Description
Master	Master is the type of Master of distributed PyTorch.
Worker	Worker is the type for workers of distributed PyTorch.



**Table 6-289** Data structure of TFJobList kubeflow\_v1

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
metadata	No	ListMeta object	Standard type metadata.
items	Yes	Array of TFJob kubeflow_v1 objects	Lists of TFJobs.

**Table 6-290** Data structure of MXJobList kubeflow\_v1

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
metadata	No	ListMeta object	Standard type metadata.
items	Yes	Array of MXJob kubeflow_v1 objects	Lists of mxjobs.

**Table 6-291** Data structure of PyTorchJobList kubeflow\_v1

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
metadata	No	ListMeta object	Standard type metadata.
items	Yes	Array of PyTorchJob kubeflow_v1 objects	Lists of pytorchjobs.

**Table 6-292** Data structure of MPIJob kubeflow\_v1alpha2

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values. The value of this parameter is <b>v1alpha2</b> .
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase. The value of this parameter is <b>MPIJob</b> .
metadata	Yes	ObjectMeta object	Standard object's metadata.

Parameter	Mandatory	Type	Description
spec	Yes	<b>MPIJobSpec</b> object	Specification of the desired behavior of an MPIJob.
status	No	<b>JobStatus</b> object	Current status of MPIJob.

**Table 6-293** Data structure of the MPIJobSpec field

Parameter	Mandatory	Type	Description
activeDeadlineSecond	No	Integer	Specifies the duration in seconds relative to the startTime that the job may be active before the system tries to terminate it; value must be positive integer.
backoffLimit	No	Integer	Optional number of retries before marking this job failed.
cleanPodPolicy	No	<b>CleanPodPolicy</b> object	CleanPodPolicy defines the policy to kill pods after TFJob is succeeded. Default to Running.
slotsPerWorker	No	Integer	Specifies the number of slots per worker used in hostfile. Defaults to 1.
mpiReplicaSpecs	Yes	Array of <b>ReplicaSpec</b> objects	MPIReplicaSpecs is map of MPIReplicaType and MPIReplicaSpec specifies the MPI replicas to run. For example, { "Launcher": MPIReplicaSpec, "Worker": MPIReplicaSpec, }

**Table 6-294** Available values of the MPIReplicaType field

Available Value	Description
Launcher	Launcher is the type for launcher replica in MPI.

Avai labl e Val ue	Description
Wor ker	Worker is the type for workers of distributed MPI.

**Table 6-295** Data structure of MPIJobList kubeflow\_v1alpha2

Para meter	Ma nd ato ry	Type	Description
apiVer sion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
metad ata	No	ListMeta object	Standard type metadata.
items	Yes	Array of MPIJob kubeflo w_v1alp ha2 objects	List of MPIJobs.

**Table 6-296** Data structure of PersistentVolumeClaim v1

Parameter	Type	Description
apiVersion	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
kind	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated.

Parameter	Type	Description
metadata	<a href="#">ListMeta v1 meta</a> object	Standard object's metadata.
spec	<a href="#">PersistentVolumeClaimSpec</a> object	Spec defines the desired characteristics of a volume requested by a pod author.
status	<a href="#">PersistentVolumeClaimStatus</a> object	Status represents the current information/status of a persistent volume claim. Read-only.

**Table 6-297** Data structure of the meta field in ListMeta v1

Name	Type	Description
continue	string	Continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response
resourceVersion	string	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. <b>Read-only</b>
selfLink	string	SelfLink is a URL representing this object. Populated by the system. <b>Read-only</b>

**Table 6-298** Data structure of the PersistentVolumeClaimSpec field

Parameter	Mandatory	Type	Description
volumeName	No	String	VolumeName is the binding reference to the PersistentVolume backing this claim.

Parameter	Mandatory	Type	Description
accessModes	Yes	Array of strings	AccessModes contains the desired access modes the volume should have. <b>ReadWriteOnce</b> – the volume can be mounted as read-write by a single node <b>ReadOnlyMany</b> – the volume can be mounted read-only by many nodes <b>ReadWriteMany</b> – the volume can be mounted as read-write by many nodes
resources	Yes	<a href="#">ResourceRequirements</a> object	Resources represents the minimum resources the volume should have.
selector	No	<a href="#">labelSelector</a> object	A label query over volumes to consider for binding.
storageClassName	Yes	String	Name of the StorageClass required by the claim. The following fields are supported: <ul style="list-style-type: none"> <li>• EVS Currently, EVS disks of high I/O (SAS disks), ultra-high I/O (SSD disks), and common I/O (SATA disks) types are supported.</li> <li>• SFS Currently, nfs-rw is supported.</li> <li>• SFS Turbo Currently, SFS Turbo volumes of high-performance (efs-performance) and standard (efs-standard) types are supported.</li> </ul>
volumeMode	No	String	volumeMode defines what type of volume is required by the claim. Can be: <ul style="list-style-type: none"> <li>- <b>Block</b>: the volume will not be formatted with a filesystem and will remain a raw block device</li> <li>- <b>Filesystem</b>: the volume will be or is formatted with a filesystem</li> </ul>

**Table 6-299** Data structure of the PersistentVolumeClaimStatus field

Parameter	Mandatory	Type	Description
accessModes	No	Array of strings	AccessModes contains the actual access modes the volume backing the PVC has. <b>ReadWriteOnce</b> - can be mounted read/write mode to exactly 1 host <b>ReadOnlyMany</b> - can be mounted in read-only mode to many hosts <b>ReadWriteMany</b> - can be mounted in read/write mode to many hosts
capacity	No	Array of <b>ResourceRequirements</b> objects	Represents the actual resources of the underlying volume.
phase	No	String	Phase represents the current phase of PersistentVolumeClaim. pending - used for PersistentVolumeClaims that are not yet bound Bound - used for PersistentVolumeClaims that are bound Lost - used for PersistentVolumeClaims that lost their underlying PersistentVolume. The claim was bound to a PersistentVolume and this volume does not exist any longer and all data on it was lost.
conditions	No	Array of <b>PersistentVolumeClaimCondition</b> objects	Current Condition of persistent volume claim. If underlying persistent volume is being resized then the Condition will be set to ResizeStarted.

**Table 6-300** Data structure of the PersistentVolumeClaimCondition field

Name	Mandatory	Type	Description
type	No	String	Type of the condition. Currently only Ready. <b>Resizing</b> - An user trigger resize of pvc has been started
status	No	String	Status of the condition. Can be <b>True</b> , <b>False</b> , or <b>Unknown</b> .

Name	Mandatory	Type	Description
lastProbeTime	No	String	Last time we probed the condition.
lastTransitionTime	No	String	Last time the condition transitioned from one status to another.
reason	No	String	Unique, one-word, CamelCase reason for the condition's last transition.
message	No	String	Human-readable message indicating details about last transition.

**Table 6-301** Data structure of the ResourceRequirements field

Parameter	Mandatory	Type	Description
limits	No	Array of <a href="#">ResourceName</a> objects	Maximum amount of compute resources allowed. <b>NOTE</b> The values of <b>limits</b> and <b>requests</b> must be the same. Otherwise, an error is reported.
requests	No	Array of <a href="#">ResourceName</a> objects	Minimum amount of compute resources required. If Requests is omitted for a container, it defaults to Limits if that is explicitly specified, otherwise to an implementation-defined value.  CCI has limitation on pod specifications. For details, see <b>Pod Specifications</b> in <a href="#">Usage Constraints</a> .

**Table 6-302** Available values of the ResourceName field

Type	Mandatory	Type	Description
storage	No	String	Volume size, in bytes (e.g. 5Gi = 5GiB = 5 * 1024 * 1024 * 1024)
cpu	No	String	CPU size, in cores. (500m = .5 cores)
memory	No	String	Memory size, in bytes. (500Gi = 500GiB = 500 * 1024 * 1024 * 1024)



Type	Mandatory	Type	Description
localdir	No	String	Local Storage for LocalDir, in bytes. (500Gi = 500GiB = 500 * 1024 * 1024 * 1024)
nvidia.com/gpu-tesla-v100-16GB	No	String	NVIDIA GPU resource, the type may change in different environments, in production environment is nvidia.com/gpu-tesla-v100-16GB now. The value must be an integer and not less than 1.

**Table 6-303** Data structure of the labelSelector field

Parameter	Mandatory	Type	Description
matchExpressions	No	Array of <a href="#">LabelSelector Requirement</a> objects	matchExpressions is a list of label selector requirements. The requirements are ANDed.
matchLabels	No	Object	MatchLabels is a map of {key,value} pairs. A single {key,value} in the matchLabels map is equivalent to an element of matchExpressions, whose key field is "key", the operator is "In", and the values array contains only "value". The requirements are ANDed.

**Table 6-304** Data structure of the LabelSelectorRequirement field

Parameter	Mandatory	Type	Description
key	No	String	Key is the label key that the selector applies to.
operator	No	String	Operator represents a key's relationship to a set of values. <b>Valid operators are In, NotIn, Exists and DoesNotExist.</b>

Parameter	Mandatory	Type	Description
values	No	Array of strings	Values is an array of string values. If the operator is In or NotIn, the values array must be non-empty. If the operator is Exists or DoesNotExist, the values array must be empty. This array is replaced during a strategic merge patch.

**Table 6-305** Data structure of PersistentVolume

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
metadata	Yes	<a href="#">metadata</a> object	Standard object's metadata.
spec	Yes	<a href="#">spec</a> object	Spec defines a specification of a persistent volume owned by the cluster. Provisioned by an administrator.
status	No	<a href="#">status</a> object	Status represents the current information/status for the persistent volume. Populated by the system. Read-only.

**Table 6-306** Data structure of the spec field

Parameter	Mandatory	Type	Description
accessModes	Yes	Array of strings	Access mode. Options: ReadWriteOnce: can be read and written by a single node. ReadOnlyMany: can only be read by multiple nodes. ReadWriteMany: can be read and written by multiple nodes.
capacity	Yes	Object	A description of the persistent volume's resources and capacity.
claimRef	No	<b>claimRef</b> object	ClaimRef is part of a bi-directional binding between PersistentVolume and PersistentVolumeClaim. Expected to be non-nil when bound. claim. VolumeName is the authoritative bind between PV and PVC.
hostPath	No	<b>hostPath</b> object	HostPath represents a directory on the host. Provisioned by a developer or tester. This is useful for single-node development and testing only! On-host storage is not supported in any way and WILL NOT WORK in a multi-node cluster.
nfs	No	<b>nfs</b> object	NFS represents an NFS mount on the host. Provisioned by an admin.
persistentVolumeReclaimPolicy	No	String	What happens to a persistent volume when released from its claim. Valid options are Retain (default) and Recycle. Recycling must be supported by the volume plugin underlying this persistent volume.
storageClassName	No	String	Name of StorageClass to which this persistent volume belongs. Empty value means that this volume does not belong to any StorageClass.

**Table 6-307** Data structure of the status field

Parameter	Mandatory	Type	Description
message	No	String	A human-readable message indicating details about why the volume is in this state.
phase	No	String	Phase indicates if a volume is available, bound to a claim, or released by a claim.
reason	No	String	Reason is a brief CamelCase string that describes any failure and is meant for machine parsing and tidy display in the CLI.

**Table 6-308** Data structure of the claimRef field

Parameter	Mandatory	Type	Description
apiVersion	No	String	API version of the referent.
fieldPath	No	String	If referring to a piece of an object instead of an entire object, this string should contain a valid JSON/Go field access statement, such as <code>desiredState.manifest.containers[2]</code> . For example, if the object reference is to a container within a pod, this would take on a value like: <code>"spec.containers{name}"</code> (where "name" refers to the name of the container that triggered the event) or if no container name is specified <code>"spec.containers[2]"</code> (container with index 2 in this pod). This syntax is chosen only to have some well-defined way of referencing a part of an object.
kind	No	String	Kind of the referent.
name	No	String	Name of the referent.
namespace	No	String	Namespace of the referent.

Parameter	Mandatory	Type	Description
resourceVersion	No	String	Specific resourceVersion to which this reference is made, if any.
uid	No	String	UID of the referent.

**Table 6-309** Data structure of the hostPath field

Parameter	Mandatory	Type	Description
path	No	String	Path of the directory on the host.

**Table 6-310** Data structure of the nfs field

Parameter	Mandatory	Type	Description
path	No	String	Path that is exported by the NFS server.
readOnly	No	Boolean	ReadOnly here will force the NFS export to be mounted with read-only permissions. Defaults to false.
server	No	String	Server is the hostname or IP address of the NFS server.

**Table 6-311** Data structure of the metadata field

Name	Mandatory	Type	Description
name	Yes	String	<p>Name must be unique within a namespace. Is required when creating resources, although some resources may allow a client to request the generation of an appropriate name automatically. Name is primarily intended for creation idempotence and configuration definition. Cannot be updated.</p> <p>0 characters &lt; name length ≤ 253 characters.</p> <p>The name must be a regular expression [a-z0-9]([-a-z0-9]*[a-z0-9])?.</p>
clusterName	No	String	<p>The name of the cluster which the object belongs to. This is used to distinguish resources with same name and namespace in different clusters. This field is not set anywhere right now and apiserver is going to ignore it if set in create or update request.</p>
initializers	No	<b>initializers</b> object	<p>An initializer is a controller which enforces some system invariant at object creation time. This field is a list of initializers that have not yet acted on this object. If nil or empty, this object has been completely initialized. Otherwise, the object is considered uninitialized and is hidden (in list/watch and get calls) from clients that haven't explicitly asked to observe uninitialized objects. When an object is created, the system will populate this list with the current set of initializers. Only privileged users may set or modify this list. Once it is empty, it may not be modified further by any user.</p>
enable	No	Boolean	<p>Enable identify whether the resource is available.</p>

Name	Mandatory	Type	Description
generateName	No	String	<p>An optional prefix used by the server to generate a unique name ONLY IF the Name field has not been provided. If this field is used, the name returned to the client will be different from the name passed. This value will also be combined with a unique suffix. The provided value has the same validation rules as the Name field, and may be truncated by the length of the suffix required to make the value unique on the server.</p> <p>If this field is specified and the generated name exists, the server will NOT return a 409. Instead, it will either return 201 Created or 500 with Reason ServerTimeout indicating a unique name could not be found in the time allotted, and the client should retry (optionally after the time indicated in the Retry-After header).</p> <p>Applied only if Name is not specified.</p> <p>0 characters &lt; generated name length ≤ 253 characters.</p> <p>The generated name must be a regular expression [a-z0-9]([-a-z0-9]*[a-z0-9])?.</p>

Name	Mandatory	Type	Description
namespace	No	String	<p>Namespace defines the space within each name must be unique. An empty namespace is equivalent to the "default" namespace, but "default" is the canonical representation. Not all objects are required to be scoped to a namespace - the value of this field for those objects will be empty. Must be a DNS_LABEL. Cannot be updated.</p> <p>0 characters &lt; namespace length ≤ 63 characters.</p> <p>The namespace must be a regular expression [a-z0-9]([-a-z0-9]*[a-z0-9])?.</p>
selfLink	No	String	<p>A URL representing this object. Populated by the system. Read-only.</p> <p><b>NOTE</b> This field is automatically generated. Do not assign any value to this field. Otherwise, API calls would fail.</p>
uid	No	String	<p>UID is the unique in time and space value for this object. It is typically generated by the server on successful creation of a resource and is not allowed to change on PUT operations. Populated by the system. Read-only.</p> <p><b>NOTE</b> This field is automatically generated. Do not assign any value to this field. Otherwise, API calls would fail.</p>



Name	Mandatory	Type	Description
resourceVersion	No	String	<p>An opaque value that represents the internal version of this object that can be used by clients to determine when objects have changed. May be used for optimistic concurrency, change detection, and the watch operation on a resource or set of resources. Clients must treat these values as opaque and passed unmodified back to the server. They may only be valid for a particular resource or set of resources. Populated by the system. Read-only. Value must be treated as opaque by clients.</p> <p><b>NOTE</b> This field is automatically generated. Do not assign any value to this field. Otherwise, API calls would fail.</p>
generation	No	Integer	<p>A sequence number representing a specific generation of the desired state. Currently only implemented by replication controllers. Populated by the system. Read-only.</p>
creationTimestamp	No	String	<p>A timestamp representing the server time when this object was created. It is not guaranteed to be set in happens-before order across separate operations. Clients may not set this value. It is represented in RFC3339 form and is in UTC. Populated by the system. Read-only. Null for lists.</p> <p><b>NOTE</b> This field is automatically generated. Do not assign any value to this field. Otherwise, API calls would fail.</p>

Name	Mandatory	Type	Description
deletionTimestamp	No	String	RFC 3339 date and time at which this resource will be deleted. This field is set by the server when a graceful deletion is requested by the user, and is not directly settable by a client. The resource will be deleted (no longer visible from resource lists, and not reachable by name) after the time in this field. Once set, this value may not be unset or be set further into the future, although it may be shortened or the resource may be deleted prior to this time. For example, a user may request that a pod is deleted in 30 seconds. The Kubelet will react by sending a graceful termination signal to the containers in the pod. Once the resource is deleted in the API, the Kubelet will send a hard termination signal to the container. If not set, graceful deletion of the object has not been requested. Populated by the system when a graceful deletion is requested. Read-only.
deletionGracePeriodSeconds	No	Integer	Number of seconds allowed for this object to gracefully terminate before it will be removed from the system. Only set when deletionTimestamp is also set. May only be shortened. Read-only.
labels	Yes	Object	<p>Map of string keys and values that can be used to organize and categorize (scope and select) objects. May match selectors of replication controllers and services.</p> <p><b>NOTE</b> This field should be filled in to create the real storage dynamically. The value of the field is according to the real region and zone.</p>

Name	Mandatory	Type	Description
annotations	No	<b>annotations</b> object	An unstructured key value map stored with a resource that may be set by external tools to store and retrieve arbitrary metadata. They are not queryable and should be preserved when modifying objects.  <b>NOTE</b> This field should be filled in to create the real storage dynamically. This field indicates the storage add-on and the StorageClass.
ownerReferences	No	<b>ownerReferences</b> object	List of objects depended by this object. If ALL objects in the list have been deleted, this object will be garbage collected. If this object is managed by a controller, then an entry in this list will point to this controller, with the controller field set to true. There cannot be more than one managing controller.
finalizers	No	Array of strings	Must be empty before the object is deleted from the registry. Each entry is an identifier for the responsible component that will remove the entry from the list. If the deletionTimestamp of the object is non-nil, entries in this list can only be removed.

**Table 6-312** Data structure of the annotations field

Parameter	Mandatory	Type	Description
volume.beta.kubernetes.io/storage-class	Yes	String	Storage class. <ul style="list-style-type: none"> <li>• EVS Currently, EVS disks of high I/O (SAS disks), ultra-high I/O (SSD disks), and common I/O (SATA disks) types are supported.</li> <li>• SFS Currently, nfs-rw is supported.</li> </ul>

Parameter	Mandatory	Type	Description
volume.beta.kubernetes.io/storage-provisioner	Yes	String	Mount path. <ul style="list-style-type: none"> <li>If the storage class is <b>EVS</b>, set this parameter to <b>flexvolume-huawei.com/fuxivol</b>.</li> <li>If the storage class is <b>SFS</b>, set this parameter to <b>flexvolume-huawei.com/fuxinfs</b>.</li> </ul>

**Table 6-313** Data structure of the initializers field

Parameter	Mandatory	Type	Description
pending	No	<b>pending</b> object	Pending is a list of initializers that must execute in order before this object is visible. When the last pending initializer is removed, and no failing result is set, the initializers struct will be set to nil and the object is considered as initialized and visible to all clients.
result	No	<b>result</b> object	If result is set with the Failure field, the object will be persisted to storage and then deleted, ensuring that other clients can observe the deletion.

**Table 6-314** Data structure of the pending field

Parameter	Mandatory	Type	Description
name	No	String	Name of the process that is responsible for initializing this object.

**Table 6-315** Data structure of the result field

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
code	No	Integer	Suggested HTTP return code for this status, 0 if not set.
details	No	<a href="#">details</a> object	Extended data associated with the reason. Each reason may define its own extended details. This field is optional and the data returned is not guaranteed to conform to any schema except that defined by the reason type.
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated.
message	No	String	A human-readable description of the status of this operation.
metadata	Yes	<a href="#">ListMeta</a> object	Standard list metadata.
reason	No	String	A machine-readable description of why this operation is in the "Failure" status. If this value is empty there is no information available. A Reason clarifies an HTTP status code but does not override it.
status	No	String	Status of the operation. One of: "Success" or "Failure".

**Table 6-316** Data structure of the details field

Parameter	Mandatory	Type	Description
causes	No	<b>causes</b> object	The Causes array includes more details associated with the StatusReason failure. Not all StatusReasons may provide detailed causes.
group	No	String	The group attribute of the resource associated with the status StatusReason.
kind	No	String	The kind attribute of the resource associated with the status StatusReason. On some operations may differ from the requested resource Kind.
name	No	String	The name attribute of the resource associated with the status StatusReason (when there is a single name which can be described).
retryAfterSeconds	No	Integer	If specified, the time in seconds before the operation should be retried.
uid	No	String	UID of the resource. (when there is a single resource which can be described).

**Table 6-317** Data structure of the ListMeta field

Parameter	Mandatory	Type	Description
resourceVersion	No	String	String that identifies the server's internal version of this object that can be used by clients to determine when objects have changed. Value must be treated as opaque by clients and passed unmodified back to the server. Populated by the system. Read-only.

Parameter	Mandatory	Type	Description
Continue	No	String	Continue may be set if the user set a limit on the number of items returned, and indicates that the server has more data available. The value is opaque and may be used to issue another request to the endpoint that served this list to retrieve the next set of available objects. Continuing a list may not be possible if the server configuration has changed or more than a few minutes have passed. The resourceVersion field returned when using this continue value will be identical to the value in the first response.
selfLink	No	String	SelfLink is a URL representing this object. Populated by the system. Read-only.

**Table 6-318** Data structure of the causes field

Parameter	Mandatory	Type	Description
field	No	String	The field of the resource that has caused this error, as named by its JSON serialization. May include dot and postfix notation for nested attributes. Arrays are zero-indexed. Fields may appear more than once in an array of causes due to fields having multiple errors. Optional. Examples: "name" - the field "name" on the current resource "items[0].name" - the field "name" on the first array entry in "items"
message	No	String	A human-readable description of the cause of the error. This field may be presented as-is to a reader.

Parameter	Mandatory	Type	Description
reason	No	String	A machine-readable description of the cause of the error. If this value is empty there is no information available.

**Table 6-319** Data structure of the ownerReferences field

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	API version of the referent.
blockOwnerDeletion	No	Boolean	If true, AND if the owner has the "foregroundDeletion" finalizer, then the owner cannot be deleted from the key-value store until this reference is removed. Defaults to false. To set this field, a user needs "delete" permission of the owner, otherwise 422 (Unprocessable Entity) will be returned.
kind	Yes	String	Kind of the referent.
name	Yes	String	Name of the referent.
uid	No	String	UID of the referent.
controller	No	Boolean	If true, this reference points to the managing controller.

**Table 6-320** Data structure of volume

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	APIVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.



Parameter	Mandatory	Type	Description
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated. In CamelCase.
metadata	Yes	<b>metadata</b> object	Standard object's metadata.
spec	Yes	<b>spec</b> object	Spec defines a specification of a volume owned by the cluster.
status	No	<b>status</b> object	Status represents the current information/status for the volume. Populated by the system. Read-only.

**Table 6-321** Data structure of the spec field

Parameter	Mandatory	Type	Description
name	Yes	String	Name of this volume.
size	Yes	Integer	Size of this volume.
description	No	String	Description of this volume.
storageclassname	No	String	StorageClassName new add, use to get az and type from k8s.
inresourcepool	Yes	Boolean	Whether the volume is in the resource pool.
availability_zone	No	String	AvailabilityZone of this volume.
volume_type	No	String	VolumeType of this volume.
snapshot_id	No	String	SnapshotId of this volume.
multiattach	Yes	Boolean	Multiattach defines whether to attach by multiple containers.
storage_type	No	String	Optional values: BS(Block Storage), OS(Object Storage), NFS(Network File System).Default: BS

Parameter	Mandator y	Type	Description
share_proto	No	String	When storage_type NFS is required, effective value is NFS.
is_public	No	Boolean	When storage_type is NFS, the visibility of sharing is expressed. Set to true, public visible, set to false, private visible. Default:false
access_to	No	String	When storage_type NFS is required, the definition of the access rule. The length of 1~255, is VPC ID.
access_level	No	String	When storage_type NFS is required, said sharing permission level to access the value of RO (read only), RW (read and write).
pvc_name	No	String	pvcName of volume
access	Yes	Array of <a href="#">access</a> object	sfs access.
vpc_id	Yes	String	efs vpc
enterprise_project_id	No	String	enterprise_project_id
volume_id	No	String	volume_id
auto_expand	No	Boolean	When storage_type NFS is required, when value is true capacity expansion is not supported.

**Table 6-322** Data structure of the status field

Parameter	Mandator y	Type	Description
id	No	String	A human-readable message indicating details about why the volume is in this state.
status	Yes	String	Phase indicates if a volume is available, bound to a claim, or released by a claim.

Parameter	Mandatory	Type	Description
created_at	No	String	Reason is a brief CamelCase string that describes any failure and is meant for machine parsing and tidy display in the CLI.
attachments	Yes	Array of <b>attachment</b> objects	Attachments information of this volume.
app_info	Yes	Array of <b>app_info</b> objects	volume using info.
access_state	No	String	Access state
access_id	No	String	Vpc id
export_location	No	String	Export location
export_locations	No	String	Export locations

**Table 6-323** Data structure of the access field

Parameter	Mandatory	Type	Description
share_id	No	String	uuid of share.
access_type	Yes	String	access rule type.
access_to	Yes	String	vpc id.
access_level	Yes	String	access level.
id	Yes	String	uuid of access rule.
state	Yes	String	status of access rule.should be active or error.

**Table 6-324** Data structure of the attachment field

Parameter	Mandatory	Type	Description
attachment_id	No	String	AttachmentId.
server_id	No	String	Server of Attached device.

Parameter	Mandatory	Type	Description
host_name	No	String	Host name of the attached machine.
device	No	String	Attached device.

**Table 6-325** Data structure of the app\_info field

Parameter	Mandatory	Type	Description
app_name	Yes	String	App name.
namespace	Yes	String	namespace.
mount_path	Yes	String	Mount path.
app_type	Yes	String	App type

# 7 Permissions Policies and Supported Actions

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[7.1 Introduction](#)

[7.2 Category of CCI Actions](#)

## 7.1 Introduction

This topic describes fine-grained permissions management for your CCI. If your account does not need individual IAM users, you may skip this topic.

You need to add a user to one or more groups, and assign permissions policies to these groups. The user then inherits permissions from the groups it is a member of. This process is called authorization. After authorization, the user can perform specified operations on CCI based on the permissions. For more information about policy syntax and example policies, see [Permissions Management](#).

You can grant users their permissions by using [roles](#) and [policies](#). Roles are a type of service-based, coarse-grained authorization mechanism that defines permissions related to user responsibilities. Policies define API-based permissions for operations on specific resources under certain conditions, allowing for more fine-grained, secure access control of cloud resources.

### NOTE

If you want to allow or deny the access to an API, fine-grained authorization is a good choice.

An account has all of the permissions required to call all APIs, but IAM users must have the required permissions specifically assigned. The permissions required for calling an API are determined by the actions supported by the API. Only users who have been granted permissions allowing the actions can call the API successfully. For example, if an IAM user queries pods using an API, the user must have been granted permissions that allow the **CCI:namespaceSubResource:Get** action.

## Supported Actions

CCI provides system-defined policies that can be directly used in IAM. You can also create custom policies and use them to supplement system-defined policies,

implementing more refined access control. Operations supported by policies are specific to APIs. The following are common concepts related to policies:

- **Permission:** A statement in a policy that allows or denies certain operations.
- **APIs:** REST APIs that can be called in a custom policy.
- **Actions:** Added to a custom policy to control permissions for specific operations.
- **IAM or enterprise projects:** Type of projects for which an action will take effect. Policies that contain actions supporting both IAM and enterprise projects can be assigned to user groups and take effect in both IAM and Enterprise Management. Policies that only contain actions supporting IAM projects can be assigned to user groups and only take effect for IAM. Such policies will not take effect if they are assigned to user groups in Enterprise Management. For details about the differences between IAM and enterprise projects, see [What Are the Differences Between IAM and Enterprise Management?](#)

 **NOTE**

The check mark (✓) and cross symbol (x) indicate that an action takes effect or does not take effect for the corresponding type of projects.

CCI supports the following actions that can be defined in custom policies:

- **Namespace management actions**, including actions supported by all namespace management APIs, such as the APIs for creating, querying, modifying, and deleting namespaces.
- **Pod management actions**, including actions supported by all pod management APIs, such as the API for querying pods.
- **Deployment management actions**, including actions supported by all Deployment management APIs, such as the APIs for creating, querying, modifying, and deleting Deployments.
- **StatefulSet management actions**, including actions supported by all StatefulSet management APIs, such as the APIs for creating, querying, modifying, and deleting StatefulSets.
- **Job management actions**, including actions supported by all job management APIs, such as the APIs for creating, querying, modifying, and deleting jobs.
- **Service management actions**, including actions supported by all Service management APIs, such as the APIs for creating, querying, modifying, and deleting Services.
- **Ingress management actions**, including actions supported by all ingress management APIs, such as the APIs for creating, querying, modifying, and deleting ingresses.
- **Network management actions**, including actions supported by all network management APIs, such as the APIs for creating, querying, modifying, and deleting networks.
- **PersistentVolumeClaim management actions**, including actions supported by all PersistentVolumeClaim management APIs, such as the APIs for creating, querying, modifying, and deleting PersistentVolumeClaims.

- **ConfigMap management actions**, including actions supported by all ConfigMap management APIs, such as the APIs for creating, querying, modifying, and deleting ConfigMaps.
- **Secret management actions**, including actions supported by all secret management APIs, such as the APIs for creating, querying, modifying, and deleting secrets.
- **ClusterRole management actions**, including actions supported by all ClusterRole management APIs, such as querying ClusterRoles.
- **RoleBinding management actions**, including actions supported by all RoleBinding management APIs, such as the APIs for creating, querying, modifying, and deleting RoleBindings.

## 7.2 Category of CCI Actions

**Table 7-1** Namespace management actions

Permissions	API	Action	IAM Project	Enterprise Project
Creating a Namespace	POST /api/v1/namespaces	CCI:namespace:create	√	√
Reading a Namespace	GET /api/v1/namespaces/{name}	CCI:namespace:get	√	√
Listing Namespaces	GET /api/v1/namespaces	CCI:namespace:list	√	√
Deleting a Namespace	DELETE /api/v1/namespaces/{name}	CCI:namespace:delete	√	√

**Table 7-2** Pod management actions

Permissions	API	Action	IAM Project	Enterprise Project
Creating a Pod	POST /api/v1/namespaces/{namespace}/pods	CCI:namespaceSubResource:Create	√	√

Permissions	API	Action	IAM Project	Enterprise Project
Reading a Pod	GET /api/v1/namespaces/{namespace}/pods/{name}	CCI:namespaceSubResource:Get	√	√
Reading All Pods Under a Specified Namespace	GET /api/v1/namespaces/{namespace}/pods	CCI:namespaceSubResource:List	√	√
Reading the Status of a Pod	GET /api/v1/namespaces/{namespace}/pods/{name}/status	CCI:namespaceSubResource:Get	√	√
Reading Pod Logs	GET /api/v1/namespaces/{namespace}/pods/{name}/log	CCI:namespaceSubResource:Get	√	√
Listing All Pods of a User	GET /api/v1/pods	cci:namespaceSubResource:List	√	√
Replacing a Pod	PUT /api/v1/namespaces/{namespace}/pods/{name}	CCI:namespaceSubResource:Update	√	√
Updating a Pod	PATCH /api/v1/namespaces/{namespace}/pods/{name}	CCI:namespaceSubResource:Update	√	√
Deleting a Pod	DELETE /api/v1/namespaces/{namespace}/pods/{name}	CCI:namespaceSubResource:Delete	√	√
Deleting All Pods	DELETE /api/v1/namespaces/{namespace}/pods	CCI:namespaceSubResource:Delete	√	√



**Table 7-3** Deployment management actions

Permissions	API	Action	IAM Project	Enterprise Project
Creating a Deployment	POST /apis/apps/v1/namespaces/{namespace}/deployments	<ul style="list-style-type: none"> <li>CCI:namespaceSubResource:Create</li> <li>elb:loadbalancers:create</li> </ul>	√	√
Reading a Deployment	GET /apis/apps/v1/namespaces/{namespace}/deployments/{name}	CCI:namespaceSubResource:Get	√	√
Reading All Deployments Under a Namespace	GET /apis/apps/v1/namespaces/{namespace}/deployments	CCI:namespaceSubResource:List	√	√
Reading the Status of a Deployment	GET /apis/apps/v1/namespaces/{namespace}/deployments/{name}/status	CCI:namespaceSubResource:Get	√	√
Reading the Scaling Operation of a Specified Deployment	GET /apis/apps/v1/namespaces/{namespace}/deployments/{name}/scale	CCI:namespaceSubResource:Get	√	√
Listing All Deployments of a User	GET /apis/apps/v1/deployments	CCI:namespaceSubResource:List	√	√
Replacing a Deployment	PUT /apis/apps/v1/namespaces/{namespace}/deployments/{name}	CCI:namespaceSubResource:Update	√	√
Replacing the Scaling Operation of a Specified Deployment	PUT /apis/apps/v1/namespaces/{namespace}/deployments/{name}/scale	CCI:namespaceSubResource:Update	√	√

Permissions	API	Action	IAM Project	Enterprise Project
Updating a Deployment	PATCH /apis/apps/v1/namespaces/{namespace}/deployments/{name}	CCI:namespaceSubResource:Update	√	√
Updating the Scaling Operation of a Specified Deployment	PATCH /apis/apps/v1/namespaces/{namespace}/deployments/{name}/scale	CCI:namespaceSubResource:Update	√	√
Deleting a Deployment	DELETE /apis/apps/v1/namespaces/{namespace}/deployments/{name}	CCI:namespaceSubResource:Delete	√	√
Deleting All Deployments Under a Specified Namespace	DELETE /apis/apps/v1/namespaces/{namespace}/deployments	CCI:namespaceSubResource:Delete	√	√

**Table 7-4** StatefulSet management actions

Permissions	API	Action	IAM Project	Enterprise Project
Creating a StatefulSet	POST /apis/apps/v1/namespaces/{namespace}/statefulsets	<ul style="list-style-type: none"> <li>CCI:namespaceSubResource:Create</li> <li>elb:loadbalancers:create</li> </ul>	√	√
Reading a StatefulSet	GET /apis/apps/v1/namespaces/{namespace}/statefulsets/{name}	CCI:namespaceSubResource:Get	√	√
Reading All StatefulSets Under a Specified Namespace	GET /apis/apps/v1/namespaces/{namespace}/statefulsets	CCI:namespaceSubResource:List	√	√

Permissions	API	Action	IAM Project	Enterprise Project
Reading the Status of a StatefulSet	GET /apis/apps/v1/namespaces/{namespace}/statefulsets/{name}/status	CCI:namespaceSubResource:Get	√	√
Listing All StatefulSets of a User	GET /apis/apps/v1/statefulsets	CCI:namespaceSubResource:List	√	√
Replacing a StatefulSet	PUT /apis/apps/v1/namespaces/{namespace}/statefulsets/{name}	CCI:namespaceSubResource:Update	√	√
Updating a StatefulSet	PATCH /apis/apps/v1/namespaces/{namespace}/statefulsets/{name}	CCI:namespaceSubResource:Update	√	√
Deleting a StatefulSet	DELETE /apis/apps/v1/namespaces/{namespace}/statefulsets/{name}	CCI:namespaceSubResource>Delete	√	√
Deleting All StatefulSets	DELETE /apis/apps/v1/namespaces/{namespace}/statefulsets	CCI:namespaceSubResource>Delete	√	√

**Table 7-5** Job management actions

Permissions	API	Action	IAM Project	Enterprise Project
Creating a Job	POST /apis/batch/v1/namespaces/{namespace}/jobs	<ul style="list-style-type: none"> <li>CCI:namespaceSubResource:Create</li> <li>elb:loadbalancers:create</li> </ul>	√	√
Reading a Job	GET /apis/batch/v1/namespaces/{namespace}/jobs/{name}	CCI:namespaceSubResource:Get	√	√
Reading All Jobs Under a Specified Namespace	GET /apis/batch/v1/namespaces/{namespace}/jobs	CCI:namespaceSubResource:List	√	√
Reading the Status of a Job	GET /apis/batch/v1/namespaces/{namespace}/jobs/{name}/status	CCI:namespaceSubResource:Get	√	√
Listing All Jobs of a User	GET /apis/batch/v1/jobs	CCI:namespaceSubResource:List	√	√
Replacing a Job	PUT /apis/batch/v1/namespaces/{namespace}/jobs/{name}	CCI:namespaceSubResource:Update	√	√
Updating a Job	PATCH /apis/batch/v1/namespaces/{namespace}/jobs/{name}	CCI:namespaceSubResource:Update	√	√
Deleting a Job	DELETE /apis/batch/v1/namespaces/{namespace}/jobs/{name}	CCI:namespaceSubResource:Delete	√	√
Deleting All Jobs	DELETE /apis/batch/v1/namespaces/{namespace}/jobs	CCI:namespaceSubResource:Delete	√	√

**Table 7-6** Service management actions

Permissions	API	Action	IAM Project	Enterprise Project
Creating a Service	POST /api/v1/namespaces/{namespace}/services	<ul style="list-style-type: none"> <li>CCI:namespaceSubResource:Create</li> <li>elb:loadbalancers:create</li> </ul>	√	√
Reading a Service	GET /api/v1/namespaces/{namespace}/services/{name}	CCI:namespaceSubResource:Get	√	√
Listing Services	GET /api/v1/namespaces/{namespace}/services	CCI:namespaceSubResource:List	√	√
Reading the Status of a Service	GET /api/v1/namespaces/{namespace}/services/{name}/status	CCI:namespaceSubResource:Get	√	√
Deleting a Service	DELETE /api/v1/namespaces/{namespace}/services/{name}	CCI:namespaceSubResource:Delete	√	√

**Table 7-7** Ingress management actions

Permissions	API	Action	IAM Project	Enterprise Project
Creating an Ingress	POST /apis/extensions/v1beta1/namespaces/{namespace}/ingresses	<ul style="list-style-type: none"> <li>CCI:namespaceSubResource:Create</li> <li>elb:loadbalancers:create</li> </ul>	√	√
Reading an Ingress	GET /apis/extensions/v1beta1/namespaces/{namespace}/ingresses/{name}	CCI:namespaceSubResource:Get	√	√

Permissions	API	Action	IAM Project	Enterprise Project
Listing Ingresses	GET /apis/ extensions/v1beta1/ namespaces/ {namespace}/ ingresses	CCI:namespaceSubResource:List	√	√
Reading the Status of an Ingress	GET /apis/ extensions/v1beta1/ namespaces/ {namespace}/ ingresses/{name}/ status	CCI:namespaceSubResource:Get	√	√
Replacing an Ingress	PUT /apis/ extensions/v1beta1/ namespaces/ {namespace}/ ingresses/{name}	CCI:namespaceSubResource:Update	√	√
Updating an Ingress	PATCH /apis/ extensions/v1beta1/ namespaces/ {namespace}/ ingresses/{name}	CCI:namespaceSubResource:Update	√	√
Deleting an Ingress	DELETE /apis/ extensions/v1beta1/ namespaces/ {namespace}/ ingresses/{name}	CCI:namespaceSubResource>Delete	√	√
Deleting All Ingresses	DELETE /apis/ extensions/v1beta1/ namespaces/ {namespace}/ ingresses	CCI:namespaceSubResource>Delete	√	√

**Table 7-8** Network management actions

Permissions	API	Action	IAM Project	Enterprise Project
Creating a Network	POST /apis/networking.cci.io/v1beta1/namespaces/{namespace}/networks	<ul style="list-style-type: none"> <li>• CCI:networkk:Create</li> <li>• vpc:vpcs:create</li> <li>• vpc:ports:create</li> <li>• vpc:vpcs:get</li> <li>• vpc:subnets:get</li> <li>• vpc:publicips:get</li> <li>• vpc:bandwidths:get</li> <li>• vpc:ports:get</li> <li>• vpc:peerings:get</li> <li>• vpc:quotas:list</li> <li>• vpc:privateips:get</li> <li>• vpc:securityGroups:get</li> <li>• vpc:securityGroupRules:get</li> <li>• vpc:networks:get</li> <li>• vpc:routers:get</li> <li>• vpc:floatingips:get</li> <li>• vpc:firewallRules:get</li> </ul>	√	√

Permissions	API	Action	IAM Project	Enterprise Project
Reading a Network	GET /apis/networking.cci.io/v1beta1/namespaces/{namespace}/networks/{name}	CCI:network: Get	√	√
Listing Networks	GET /apis/networking.cci.io/v1beta1/namespaces/{namespace}/networks	CCI:network:List	√	√
Reading the Status of a Network	GET /apis/networking.cci.io/v1beta1/namespaces/{namespace}/networks/{name}/status	CCI:network: Get	√	√
Deleting a Network	DELETE /apis/networking.cci.io/v1beta1/namespaces/{namespace}/networks/{name}	<ul style="list-style-type: none"> <li>CCI:network:Delete</li> <li>vpc:vpcs:delete</li> <li>vpc:ports:delete</li> </ul>	√	√
Deleting All Networks	DELETE /apis/networking.cci.io/v1beta1/namespaces/{namespace}/networks	<ul style="list-style-type: none"> <li>CCI:network:Delete</li> <li>vpc:vpcs:delete</li> <li>vpc:ports:delete</li> </ul>	√	√



**Table 7-9** PersistentVolumeClaim management actions

Permissions	API	Action	IAM Project	Enterprise Project
Creating a PersistentVolumeClaim	POST /api/v1/namespaces/{namespace}/persistentvolumeclaims	<ul style="list-style-type: none"> <li>• CCI:namespaceSubResource:Create</li> <li>– For EVS volumes : evs:volumes:create</li> <li>evs:volumes:get</li> <li>evs:types:get</li> <li>– For SFS volumes : sfs:shares:createShare</li> <li>sfs:shares:getOSQuotaSets</li> <li>sfs:shares:ShareAction</li> </ul>	√	√
Reading a PersistentVolumeClaim	GET /api/v1/namespaces/{namespace}/persistentvolumeclaims/{name}	<ul style="list-style-type: none"> <li>• CCI:namespaceSubResource:Get</li> <li>– For EVS volumes : evs:volumes:get</li> <li>– For SFS volumes : sfs:shares:getAllSharesDetail</li> </ul>	√	√

Permissions	API	Action	IAM Project	Enterprise Project
Listing PersistentVolumeClaims	GET /api/v1/namespaces/{namespace}/persistentvolumeclaims	<ul style="list-style-type: none"> <li>CCI:namespaceSubResource:List</li> <li>For EVS volumes: evs:volume:list</li> <li>For SFS volumes: sfs:shares:getAllSharesDetail sfs:shares:ShareAction</li> <li>For OBS volumes: obs:bucket:ListAllMyBuckets</li> </ul>	√	√
Deleting a PersistentVolumeClaim	DELETE /api/v1/namespaces/{namespace}/persistentvolumeclaims/{name}	<ul style="list-style-type: none"> <li>CCI:namespaceSubResource:Delete</li> <li>For EVS volumes: evs:volume:delete evs:volume:get</li> <li>For SFS volumes: sfs:shares:deleteShare</li> </ul>	√	√

**Table 7-10** ConfigMap management actions

Permissions	API	Action	IAM Project	Enterprise Project
Creating a ConfigMap	POST /api/v1/namespaces/{namespace}/configmaps	CCI:namespaceSubResource:Create	√	√

Permissions	API	Action	IAM Project	Enterprise Project
Reading a ConfigMap	GET /api/v1/namespaces/{namespace}/configmaps/{name}	CCI:namespaceSubResource:Get	√	√
Listing ConfigMaps	GET /api/v1/namespaces/{namespace}/configmaps	CCI:namespaceSubResource:List	√	√
Replacing a ConfigMap	PUT /api/v1/namespaces/{namespace}/configmaps/{name}	CCI:namespaceSubResource:Update	√	√
Updating a ConfigMap	PATCH /api/v1/namespaces/{namespace}/configmaps/{name}	CCI:namespaceSubResource:Update	√	√
Deleting a ConfigMap	DELETE /api/v1/namespaces/{namespace}/configmaps/{name}	CCI:namespaceSubResource:Delete	√	√
Deleting All ConfigMaps	DELETE /api/v1/namespaces/{namespace}/configmaps	CCI:namespaceSubResource:Delete	√	√

**Table 7-11** Secret management actions

Permissions	API	Action	IAM Project	Enterprise Project
Creating a Secret	POST /api/v1/namespaces/{namespace}/secrets	CCI:namespaceSubResource:Create	√	√
Replacing a Secret	PUT /api/v1/namespaces/{namespace}/secrets/{name}	CCI:namespaceSubResource:Update	√	√
Updating a Secret	PATCH /api/v1/namespaces/{namespace}/secrets/{name}	CCI:namespaceSubResource:Update	√	√

Permissions	API	Action	IAM Project	Enterprise Project
Deleting a Secret	DELETE /api/v1/namespaces/{namespace}/secrets/{name}	CCI:namespaceSubResource:Delete	√	√
Deleting All Secrets	DELETE /api/v1/namespaces/{namespace}/secrets	CCI:namespaceSubResource:Delete	√	√

**Table 7-12** ClusterRole

Permissions	API	Action	IAM Project	Enterprise Project
Reading a Specified ClusterRole	GET /apis/rbac.authorization.k8s.io/v1/clusterroles/{name}	CCI:rbac:Get	√	√
Reading the ClusterRole List	GET /apis/rbac.authorization.k8s.io/v1/clusterroles	CCI:rbac:List	√	√

**Table 7-13** RoleBinding

Permissions	API	Action	IAM Project	Enterprise Project
Creating a RoleBinding	POST /apis/rbac.authorization.k8s.io/v1/namespaces/{namespace}/rolebindings	CCI:rbac:Create	√	√
Updating a Specified RoleBinding	PATCH /apis/rbac.authorization.k8s.io/v1/namespaces/{namespace}/rolebindings/{name}	CCI:rbac:Update	√	√
Replacing a Specified RoleBinding	PUT /apis/rbac.authorization.k8s.io/v1/namespaces/{namespace}/rolebindings/{name}	CCI:rbac:Update	√	√

Permissions	API	Action	IAM Project	Enterprise Project
Deleting a Specified RoleBinding	DELETE /apis/rbac.authorization.k8s.io/v1/namespaces/{namespace}/rolebindings/{name}	CCI:rbac:Delete	√	√
Reading a Specified RoleBinding	GET /apis/rbac.authorization.k8s.io/v1/namespaces/{namespace}/rolebindings/{name}	CCI:rbac:Get	√	√
Obtaining the RoleBinding List Under a Specified Namespace	GET /apis/rbac.authorization.k8s.io/v1/namespaces/{namespace}/rolebindings	CCI:rbac:List	√	√
Obtaining the RoleBinding List	GET /apis/rbac.authorization.k8s.io/v1/rolebindings	CCI:rbac:List	√	√

# 8 Appendix

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## 8.1 Patch Request Method Operation Description

Kubernetes APIs use the HTTP header "Content-Type" to distinguish between patch operations.

### Operation Description

Currently, two types of patch request method operations are supported:

1. **Merge Patch, Content-Type: application/merge-patch+json**

According to RFC 7386, merge patch contains some description of a resource object (namely, JSON object). The JSON object is submitted to the server end, and merges with the current object of the server end (that is, replaces the list field of the current resource object) to form a new object.

2. **Strategic Merge Patch, Content-Type: application/strategic-merge-patch+json**

**Strategic Merge Patch** is used to add legal metadata to API objects, and uses new metadata to determine which list should be merged and which should not. The current metadata is used as the structure labels.

For more information about the difference between **Merge Patch** and **Strategic Merge Patch**, see [8.2 Patch Request Method Operation Examples](#).

## 8.2 Patch Request Method Operation Examples

This section provides examples of **Merge Patch** and **Strategic Merge Patch** method operations.

### Operation Examples

The following is an example request for creating a deployment.

#### Example request

```
{
  "apiVersion": "v1",
  "kind": "Deployment",
  "metadata": {
    "name": "nginx"
  },
  "spec": {
    "replicas": 2,
    "selector": {
      "app": "nginx"
    },
    "template": {
      "metadata": {
        "labels": {
          "app": "nginx"
        }
      },
      "spec": {
        "containers": [
          {
            "name": "redis",
            "image": "redis:latest",
            "ports": [
              {
                "containerPort": 80
              }
            ]
          }
        ]
      }
    }
  }
}
```

#### Example response

```
{
  "kind": "ReplicationController",
  "apiVersion": "v1",
  "metadata": {
    "name": "frontend-controller",
    "namespace": "default",
    "selfLink": "/api/v1/namespaces/default/replicationcontrollers/nginx-controller",
    "uid": "549b2234-5d46-11e6-aeb9-286ed488fafa",
    "resourceVersion": "4110",
    "generation": 1,
    "creationTimestamp": "2016-08-08T08:58:52Z",
    "labels": {
      "app": "nginx"
    }
  },
}
```

```
"spec": {
  "replicas": 2,
  "selector": {
    "app": "nginx"
  },
  "template": {
    "metadata": {
      "creationTimestamp": null,
      "labels": {
        "app": "nginx"
      }
    },
    "spec": {
      "containers": [
        {
          "name": "redis",
          "image": "redis:latest",
          "ports": [
            {
              "containerPort": 80,
              "protocol": "TCP"
            }
          ],
          "resources": {},
          "terminationMessagePath": "/dev/termination-log",
          "imagePullPolicy": "Always"
        }
      ],
      "restartPolicy": "Always",
      "dnsPolicy": "ClusterFirst",
      "securityContext": {}
    }
  }
},
"status": {
  "replicas": 0
}
}
```

- If you use **Merge Patch** to add a container to the **template** field of a specified deployment, the list of existing containers is then replaced by the new container.

#### Merge Patch request

```
{
  "spec": {
    "template": {
      "spec": {
        "containers": [
          {
            "name": "hello-world",
            "image": "busybox:latest"
          }
        ]
      }
    }
  }
}
```

#### Merge Patch response

```
{
  "kind": "ReplicationController",
  "apiVersion": "v1",
  "metadata": {
    "name": "frontend-controller",
    "namespace": "default",
    "selfLink": "/api/v1/namespaces/default/replicationcontrollers/nginx-controller",
    "uid": "549b2234-5d46-11e6-aeb9-286ed488fafe",
    "resourceVersion": "4159",
```



```
"generation": 2,
"creationTimestamp": "2016-08-08T08:58:52Z",
"labels": {
  "app": "nginx"
},
"spec": {
  "replicas": 2,
  "selector": {
    "app": "nginx"
  },
  "template": {
    "metadata": {
      "creationTimestamp": null,
      "labels": {
        "app": "nginx"
      }
    },
    "spec": {
      "containers": [
        {
          "name": "hello-world",
          "image": "busybox:latest",
          "resources": {},
          "terminationMessagePath": "/dev/termination-log",
          "imagePullPolicy": "Always"
        }
      ],
      "restartPolicy": "Always",
      "dnsPolicy": "ClusterFirst",
      "securityContext": {}
    }
  }
},
"status": {
  "replicas": 2,
  "fullyLabeledReplicas": 2,
  "observedGeneration": 1
}
```

The **containers** list is replaced by the new container.

- If you use **Strategic Merge Patch** to add metadata to a resource object, the new metadata then determines which list should be merged and which should not.

#### Strategic Merge Patch request

```
{
  "spec": {
    "template": {
      "spec": {
        "containers": [
          {
            "name": "hello-world",
            "image": "busybox:latest"
          }
        ]
      }
    }
  }
}
```

#### Strategic Merge Patch response

```
{
  "kind": "ReplicationController",
  "apiVersion": "v1",
  "metadata": {
    "name": "frontend-controller",
    "namespace": "default",
```

```
"selfLink": "/api/v1/namespaces/default/replicationcontrollers/nginx-controller",
"uid": "f2e048bb-5d46-11e6-aeb9-286ed488fafa",
"resourceVersion": "4250",
"generation": 2,
"creationTimestamp": "2016-08-08T09:03:18Z",
"labels": {
  "app": "nginx"
},
"spec": {
  "replicas": 2,
  "selector": {
    "app": "nginx"
  },
  "template": {
    "metadata": {
      "creationTimestamp": null,
      "labels": {
        "app": "nginx"
      }
    },
    "spec": {
      "containers": [
        {
          "name": "redis",
          "image": "redis:latest",
          "ports": [
            {
              "containerPort": 80,
              "protocol": "TCP"
            }
          ],
          "resources": {},
          "terminationMessagePath": "/dev/termination-log",
          "imagePullPolicy": "Always"
        },
        {
          "name": "hello-world",
          "image": "busybox:latest",
          "resources": {},
          "terminationMessagePath": "/dev/termination-log",
          "imagePullPolicy": "Always"
        }
      ],
      "restartPolicy": "Always",
      "dnsPolicy": "ClusterFirst",
      "securityContext": {}
    }
  },
  "status": {
    "replicas": 2,
    "fullyLabeledReplicas": 2,
    "observedGeneration": 1
  }
}
```

The **containers** list merges with the new content according to the value of the **name** field.

## 8.3 Notes and Constraints

### Regions

CCI is available in regions listed in [Table 8-1](#).

**Table 8-1** Supported regions

Region Name	Region
LA-Sao Paulo1	sa-brazil-1

## Pod Specifications

If the pod type is not GPU-accelerated, the pod specifications you select must meet the following requirements:

- The total number of CPU cores in a pod can be a value in the range of 0.25-32, 48, or 64. The total number of CPU cores in a container is an integer multiple of 0.25.
- The total memory size (in GB) of a pod is an integer from 1 to 512.
- The ratio of CPU cores to memory size in a pod ranges from 1:2 to 1:8.
- A pod supports a maximum of five containers. The minimum configuration of a container is 0.25 cores and 0.2 GB. The maximum configuration of a container is the same as that of the pod.
- The request of an application container or init container in a pod equals to the limit of that container.

For details, see [Pod Specification Calculation](#).

## Pod Storage Space

If no EVS disk or other cloud storage is mounted, the application data is stored in the physical disks of the container. Each pod can be allocated with a maximum of 20 GB disk space (both the CPU host and the GPU host).

## Quotas

CCI imposes a quota on the number and capacity of resources that can be used by a user. For details, see [Quotas](#).

## Pod Specification Calculation

The pod specifications are calculated based on the following rules:

- Step 1** The highest of any particular resource request or limit defined on all init containers in the pod is the effective init request/limit.
- Step 2** The pod's effective request/limit for a resource is the higher of:
- the sum of all application containers request/limit for a resource
  - the effective init request/limit for a resource

----End

### NOTE

Init containers are specialized containers that run before application containers in a pod. For details, see [Initializing a Container](#).

## 8.4 Namespace and Network

A namespace provides a method of allocating resources among multiple users. It applies to scenarios where multiple teams or projects exist. Currently, CCI provides general-computing resources. When creating a namespace, you need to select a resource type. Subsequently, new workloads will run on this type of cluster.

- **General-computing:** Supports creation of container instances and workloads with CPU resources. This namespace type is suitable for general computing scenarios.

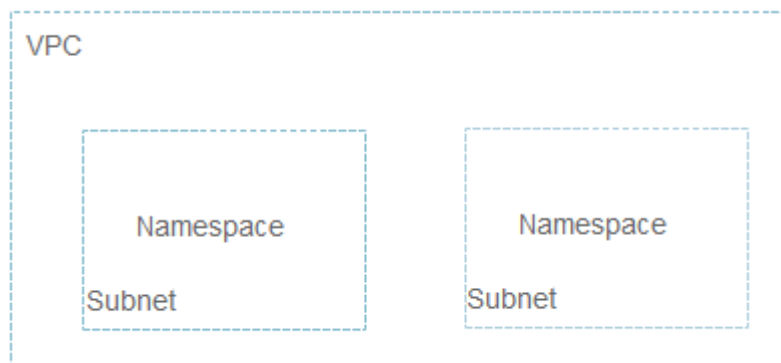
A network is a Kubernetes resource object extended for CCI. You can associate a network with a Virtual Private Cloud (VPC) and subnet so that CCI can use network resources of the public cloud.

### Relationship Between a Namespace and Network

A namespace corresponds to a subnet in a VPC, as shown in [Figure 8-1](#). When a namespace is created, it will be associated with a VPC, and a subnet will be created under the VPC. In this namespace, resources such as pods and Services are created in the corresponding VPC and subnet, and the IP addresses in the subnet are used.

If you want to run resources of multiple services in the same VPC, you need to plan subnet CIDR blocks and IP addresses.

**Figure 8-1** Relationship between namespaces and VPC subnets



### Scenarios Where Multiple Namespaces Are Used

Because namespaces enable partial environment isolation, you can create different namespaces, such as production, test, and development namespaces based on project attributes when there are a large number of projects and persons.

### Creating a Namespace

Under a namespace, a network is required to associate with a VPC and subnet. After a namespace is created, a network needs to be created.

 NOTE

In most cases, namespaces do not need to be frequently created. You are advised to create a namespace using the CCI console. For details, see [Namespace](#).

In the following example, create a namespace named **namespace-test**, and specify the CCI resource type to **general-computing**.

```
apiVersion: v1
kind: Namespace
metadata:
  name: namespace-test
  labels:
    sys_enterprise_project_id: "0"
  annotations:
    namespace.kubernetes.io/flavor: general-computing
spec:
  finalizers:
    - kubernetes
```

The definition file is in the YAML or JSON format. For more details about the YAML format, see [YAML Syntax](#).

- **sys\_enterprise\_project\_id**: enterprise project ID, which can be obtained from the project details page on the [Enterprise Project Management \(EPS\)](#) console. This field does not need to be set if you have not enabled EPS. If this parameter is not set, the default value **0** is used, indicating the **default** enterprise project.
- **namespace.kubernetes.io/flavor: general-computing**: namespace type. There are two namespace types:
  - **general-computing**: Supports creation of container instances and workloads with CPU resources. This namespace type is suitable for general computing scenarios.
  - **gpu-accelerated**: Supports creation of container instances and workloads with GPU resources. This namespace type is suitable for scenarios such as deep learning, scientific computing, and video processing.

If the file name of the namespace definition is **ns.yaml**, run **kubectl create -f ns.yaml** to create a namespace. **-f** indicates that the namespace is created from a file.

```
# kubectl create -f ns.yaml
namespace/namespace-test created
```

Run **kubectl get ns** to check whether the namespace is successfully created. In this command, **ns** indicates the namespace.

```
# kubectl get ns
NAME          STATUS   AGE
namespace-test Active   23s
```

The preceding information indicates that the namespace **namespace-test** is created successfully and the duration is 23 seconds.

Log in to the CCI console. In the navigation pane, choose **Namespaces**. You can see that the namespace is created successfully but the status is **Abnormal**. This is because in CCI, you need to define a network policy for the namespace. For details, see [Creating a Network](#).

**Figure 8-2** Namespace - abnormal

Name	Type	Status
<a href="#">namespace-test</a>	General-computing	<span style="color: red;">⚠</span> Abnormal

## Creating a Network

After creating a namespace, you need to create a network policy for the namespace and associate the namespace with the VPC and subnet.

The following example shows how to create a network named **test-network**.

```
apiVersion: networking.cci.io/v1beta1
kind: Network
metadata:
  annotations:
    network.alpha.kubernetes.io/default-security-group: security-group-id
    network.alpha.kubernetes.io/domain-id: domain-id
    network.alpha.kubernetes.io/project-id: project-id
  name: test-network
spec:
  cidr: 192.168.0.0/24
  attachedVPC: vpc-id
  networkID: network-id
  networkType: underlay_neutron
  subnetID: subnet-id
```

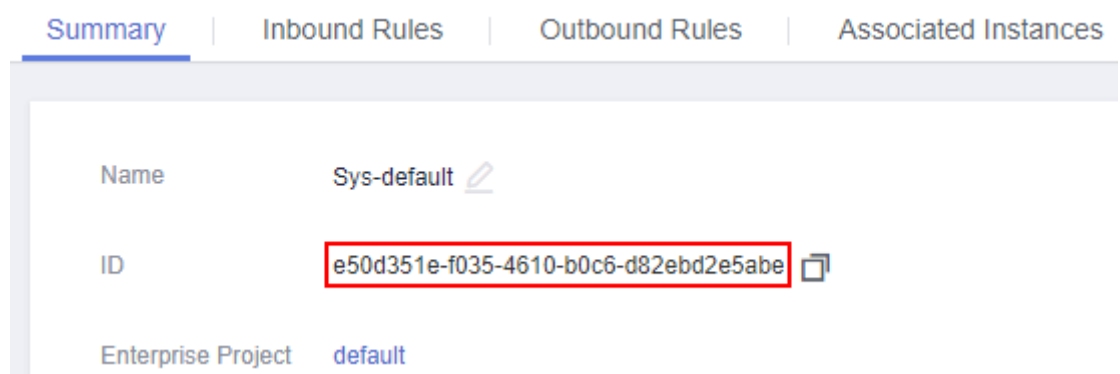
### NOTE

The CIDR blocks of the VPC and subnet cannot be **10.247.0.0/16**, which is the CIDR block reserved by CCI for Services. If you use this CIDR block, IP address conflicts may occur, which may result in workload creation failures or service unavailability. If you do not need to access pods through Services, you can allocate this CIDR block to a VPC.

You can obtain the preceding parameters as follows:

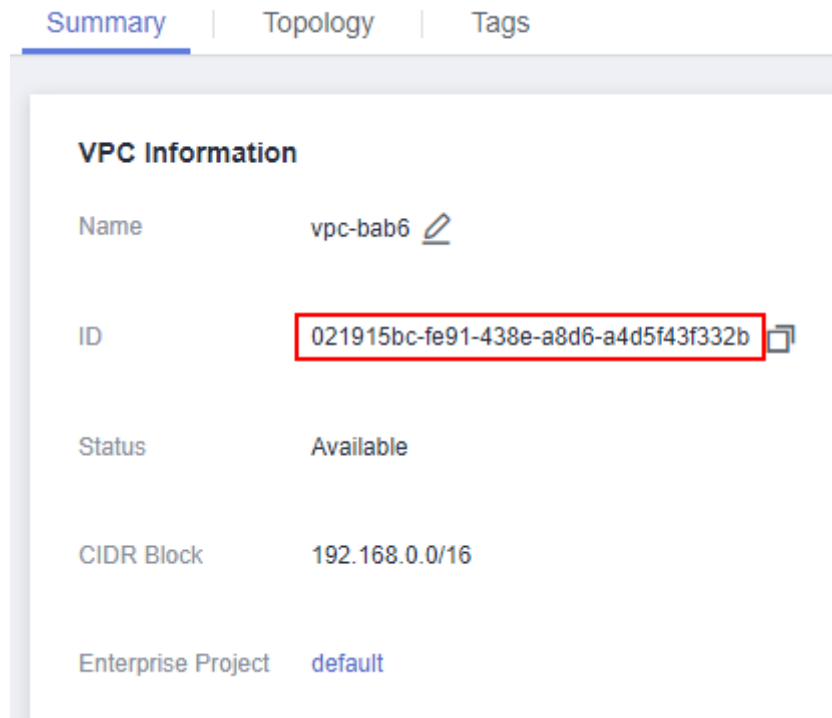
- **network.alpha.kubernetes.io/domain-id**: account ID, which can be obtained from [My Credentials](#).
- **network.alpha.kubernetes.io/project-id**: project ID, which can be obtained from [My Credentials](#).
- **network.alpha.kubernetes.io/default-security-group**: security group ID, which can be obtained from the [Security Groups](#) page.

**Figure 8-3** Obtaining the security group ID



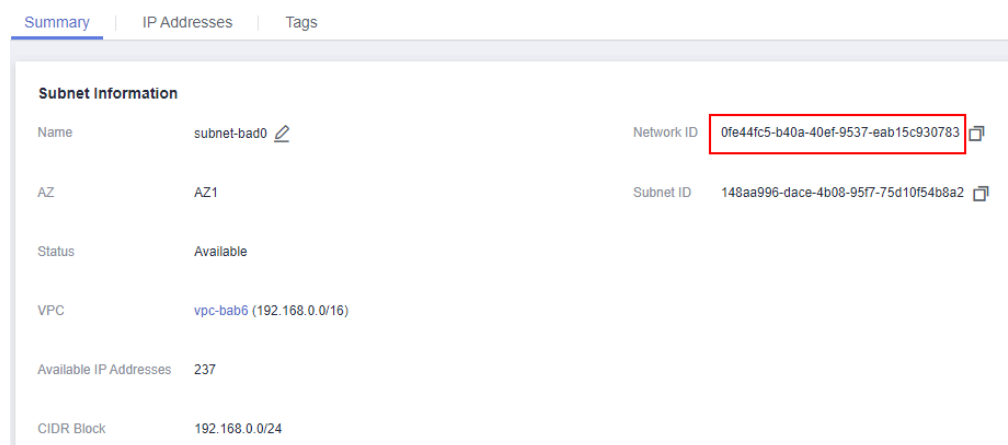
- **cidr**: subnet CIDR block.
- **attachedVPC**: VPC ID, which can be obtained from the VPC console.

Figure 8-4 Obtaining the VPC ID



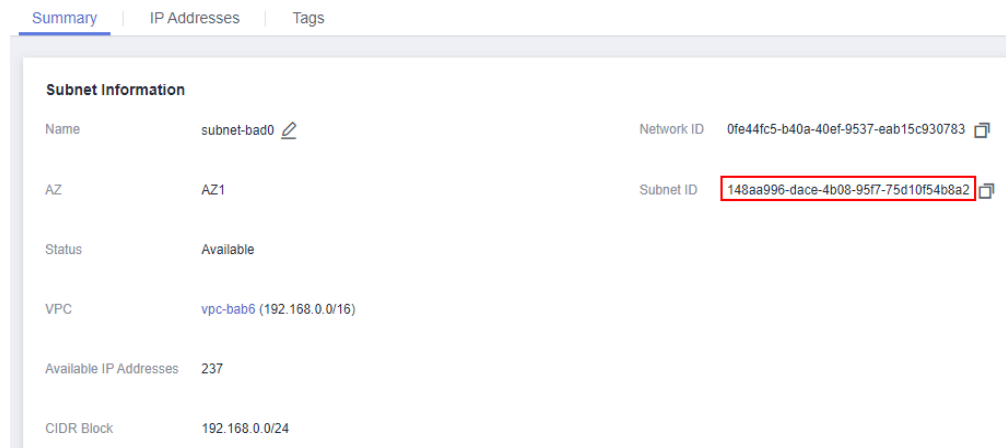
- **networkID**: subnet network ID, which can be obtained by choosing **Virtual Private Cloud** under **Network** and then choosing **Subnets** in the navigation pane.

Figure 8-5 Obtaining the subnet network ID



- **networkType**: network type. Currently, only the **underlay\_neutron** network type is supported.
- **subnetID**: subnet ID, which can be obtained by choosing **Virtual Private Cloud** under **Network** and then choosing **Subnets** in the navigation pane.

**Figure 8-6** Obtain the subnet ID.



If the file name of the network definition is **network.yaml**, run **kubectl create -f network.yaml** to create a namespace. **-f** indicates that the namespace is created from a file. **namespace namespace-test** indicates that it is created in the namespace **namespace-test**.

```
# kubectl create -f network.yaml --namespace namespace-test
network.networking.cci.io/test-network created
```

Log in to the CCI console. In the navigation pane, choose **Namespaces**. You can see that the namespace is created successfully and the status is **Available**.

**Figure 8-7** Namespace - available

Name	Type	Status
namespace-test	General-computing	Available

## Specifying a Namespace for the kubectl Context

The network above is created in a specified namespace. The subsequent resources are created in a namespace. It is time-consuming to specify the namespace each time. You can specify the namespace for a kubectl context. In this way, the resources created in the context are all under this namespace, which facilitates operations.

To specify the namespace, you only need to add the **--namespace** option to the context setting command, as shown in the following command:

```
kubectl config set-context $context --namespace=$ns
```

In the preceding command, *\$ns* indicates the namespace name, and *\$context* indicates the context name, which can be customized or obtained by running the following command:

```
# kubectl config get-contexts
CURRENT NAME CLUSTER AUTHINFO
NAMESPACE
east-3-1C8PNI0POPPCSFGXPM6S cci-cluster-cn-east-3 cci-user-cn-east-3-1C8PNI0POPPCSFGXPM6S
* cci-context-cn-east-3-hwuser_xxx cci-cluster-cn-east-3 cci-user-cn-east-3-hwuser_xxx
kubernetes-admin@kubernetes kubernetes kubernetes-admin
```



For example, if the namespace created above is named **namespace-test**, the command is as follows:

```
# kubectl config set-context cci-context --namespace=namespace-test
```

After a namespace is specified, you can run kubectl commands to directly operate CCI resources. For example, run **kubectl get pod** to check pod resources. The result shows that all resources are normal.

```
# kubectl get pod
No resources found.
```

## 8.5 Status Codes

Status Code	Name	Description
100	Continue	The server has received the initial part of the request and the client should continue to send the remaining part.  It is issued on a provisional basis while request processing continues. It alerts the client to wait for a final response.
101	Switching Protocols	The requester has asked the server to switch protocols and the server has agreed to do so. The target protocol must be more advanced than the source protocol.  For example, the current HTTP protocol is switched to a later version of HTTP.
200	OK	The results of GET, PUT, and POST operations are returned normally.
201	Created	The request has been fulfilled, resulting in the creation of a new resource.
202	Accepted	The request has been accepted for processing, but the processing has not been completed.
203	Non-Authoritative Information	The server successfully processed the request, but is returning information that may be from another source.
204	NoContent	The server has successfully processed the request, but does not return any content.  The status code is returned in response to an HTTP OPTIONS request.
205	Reset Content	The server has successfully processed the request, but does not return any content. Unlike a 204 response, this response requires that the requester reset the content.

Status Code	Name	Description
206	Partial Content	The server has successfully processed a part of the GET request.
300	Multiple Choices	There are multiple options for the requested resource. For example, this code could be used to present a list of resource characteristics and addresses from which the client such as a browser may choose.
301	Moved Permanently	This and all future requests should be permanently directed to the given URI indicated in this response.
302	Found	The requested resource was temporarily moved.
303	See Other	The response to the request can be found under a different URI, and should be retrieved using a GET or POST method.
304	Not Modified	The requested resource has not been modified. In such case, there is no need to retransmit the resource since the client still has a previously-downloaded copy.
305	Use Proxy	The requested resource is available only through a proxy.
306	Unused	This HTTP status code is no longer used.
400	BadRequest	The request is invalid. The client should modify the request instead of re-initiating it.
401	Unauthorized	The authorization information provided by the client is incorrect or invalid.
402	Payment Required	This status code is reserved for future use.
403	Forbidden	The server has received the request and understood it, but the server is refusing to respond to it. The client should modify the request instead of re-initiating it.
404	NotFound	The requested resource cannot be found. The client should modify the request instead of re-initiating it.

Status Code	Name	Description
405	MethodNotAllowed	A request method is not supported for the requested resource. The client should modify the request instead of re-initiating it.
406	Not Acceptable	The server cannot fulfill the request based on the content characteristics of the request.
407	Proxy Authentication Required	This code is similar to 401, but indicates that the client must first authenticate itself with the proxy.
408	Request Time-out	The server timed out waiting for the request. The client may re-initiate the request without modifications at any later time.
409	Conflict	The request cannot be processed due to a conflict. This status code indicates that the resource that the client attempts to create already exists, or the request fails to be processed because of the update of the conflict request.
410	Gone	The requested resource cannot be found. The status code indicates that the requested resource has been deleted permanently.
411	Length Required	The server refused to process the request because the request does not specify the length of its content.
412	Precondition Failed	The server does not meet one of the preconditions that the requester puts on the request.
413	Request Entity Too Large	The server refuses to process a request because the request entity is too large. The server may disable the connection to prevent the client from sending requests consecutively. If the server temporarily cannot process the request, the response will contain a Retry-After header field.
414	Request-URI Too Large	The URI provided was too long for the server to process.
415	Unsupported Media Type	The server does not support the media type in the request.
416	Requested range not satisfiable	The requested range is invalid.

Status Code	Name	Description
417	Expectation Failed	The server fails to meet the requirements of the Expect request-header field.
422	UnprocessableEntity	The request is well-formed but is unable to be processed due to semantic errors.
429	TooManyRequests	The client sends excessive requests to the server within a given time (exceeding the limit on the access frequency of the client), or the server receives excessive requests within a given time (beyond its processing capability). In this case, the client should repeat requests after the time specified in the Retry-After header of the response expires.
500	InternalServerError	The server is able to receive the request but it could not understand the request.
501	Not Implemented	The server does not support the requested function.
502	Bad Gateway	The server acting as a gateway or proxy receives an invalid response from a remote server.
503	ServiceUnavailable	The requested service is invalid. The client should modify the request instead of re-initiating it.
504	ServerTimeout	The server could not return a timely response. The response will reach the client only if the request carries a timeout parameter.
505	HTTP Version not supported	The server does not support the HTTP protocol version used in the request.

## 8.6 Error Codes

If an error occurs in API calling, no result is returned. Identify the error cause based on the error codes of each API. If an error occurs in API calling, HTTP status code 4xx or 5xx is returned. The response body contains the specific error code and information. If you are unable to identify the cause of an error, contact customer service and provide the error code so that we can help you solve the problem as soon as possible.

### Format of an Error Response Body

If an error occurs during API calling, the system returns an error code and message to you. The following shows the format of an error response body:

```
{
  "kind": "Status",
  "apiVersion": "v1",
  "metadata": {},
  "status": "Failure",
  "message": "namespace name is already exist",
  "reason": "Conflict",
  "code": 409,
  "errorCode": "CCI.02.409101"
}
```

In the preceding information, **code** is an HTTP status code, **errorCode** is an error code, and **message** describes the error.

## Error Code Description

If an error code starting with **APIGW** is returned after you call a CCI API, rectify the fault by referring to the instructions provided in [API Gateway Error Codes](#).

Status Code	Error Codes	Error Message	Description	Measure
400	CCI.01.400101	request body error	Request failed. The request body is invalid.	Check the request body based on the API document.
400	CCI.01.400102	provide namespace request	Failed to query namespace details. The namespace to be queried is not specified.	Specify the namespace to be queried and try again.
400	CCI.01.400103	missing user token in the request header	Failed to create the network. The request header does not contain the X-User-Token.	Ensure that the request header contains the X-User-Token.

Status Code	Error Codes	Error Message	Description	Measure
400	CCI.01.400104	no agency quota found from iam, please enlarge your quota	The maximum of IAM agencies has reached.	Submit a service ticket to increase your quota.
400	CCI.01.400105	must specify namespace name through fieldSelector, example: fieldSelector=metadata.name=namespaceName	The namespace name must be specified using <b>fieldSelector</b> , for example, <b>fieldSelector=metadata.name=namespaceName</b> .	Specify the namespace name with <b>fieldSelector</b> .
400	CCI.01.400106	volume import:request body error	The request body for importing the volume is invalid.	Check the request body based on the volume import API document.
400	CCI.01.400107	enterprise id not valid	Invalid enterprise project ID.	Modify the enterprise project ID and try again.

Status Code	Error Codes	Error Message	Description	Measure
400	CCI.01.400201	subnet cidr subnet invalid: within the coverage of VPC, and no more subnets overlap	Invalid subnet CIDR block. The subnet CIDR block cannot overlap with other subnets in the VPC.	Modify the subnet CIDR block to ensure that it does not overlap with other subnets.
400	CCI.01.400202	project id in network request body invalid	Failed to create the network. The <b>Annotation</b> field of the request body does not contain <b>project_id</b> .	Modify the <b>Annotation</b> field to ensure that it contains <b>project_id</b> and try again.
400	CCI.01.400301	storage type parameter invalid: nfs/obs/bs	Invalid storage class. Supported storage classes are NFS, OBS, and BS.	Modify the storage type parameter and try again.

Status Code	Error Codes	Error Message	Description	Measure
400	CCI.01.400302	storage volume id format invalid: the beginning and end of a numeric letter, which may contain an underline in the middle of the numeric letter	Invalid storage volume ID format. The ID can contain only letters, digits, and underscores ( _ ) and must start and end with a digit or a letter.	Change the storage volume ID and try again.
400	CCI.01.400303	storage volume id len invalid: no bigger than 64	Invalid length of the storage volume ID. The ID can contain a maximum of 64 characters.	Change the storage volume ID and try again.
400	CCI.01.400304	storage request body invalid	Failed to release the storage volume. The <b>delete_volume</b> field is invalid.	Modify the <b>delete_volume</b> field and try again.



Status Code	Error Codes	Error Message	Description	Measure
400	CCI.01.400305	storage volume not available	Failed to import the storage volume. The storage volume status is abnormal.	Contact technical support to rectify the storage volume fault and try again.
400	CCI.01.400306	storage volume is not found	Failed to import the storage volume. The storage volume does not exist.	Ensure that the storage volume to be imported exists and try again.
400	CCI.01.400307	nfs storage class type err,use "nfs-rw"	Failed to import the storage volume. The specified NFS storage is not supported. Only storage class nfs-rw is supported.	Import nfs-rw.
400	CCI.01.400308	storage volume type err, available: sas/ssd/sata	Failed to import the storage volume. The storage specifications are not supported. Supported specifications are SAS, SSD, and SATA.	Import a storage volume of supported storage format, for example, SAS, SSD, and SATA.

Status Code	Error Codes	Error Message	Description	Measure
400	CCI.01.400309	storage volume already provisioned	Failed to import the storage volume. The current volume has been imported.	Check whether the current volume has been imported.
400	CCI.01.400401	invalid billing request body: unsupported billing status	Invalid billing request body. The billing status is not supported.	Change it to a supported status.
400	CCI.01.400402	invalid billing request body: unsupported billing resource type	Invalid billing request body. The billing resource type is not supported.	Change it to a supported resource type.
400	CCI.01.400403	invalid billing request user: inner user can not be freeze or unfreeze	Invalid billing request body. The operations on internal users are not supported.	Change the user to a non-internal user.

Status Code	Error Codes	Error Message	Description	Measure
400	CCI.01.400404	invalid billing request body: resourceinfos can not match scene	Invalid billing request body. The resourceinfos does not match scene.	Change it to a supported scene field.
500	CCI.01.500101	find no cluster endpoint for namespace xxx from icluster response header	Failed to query the cluster address by namespace.	Contact technical support.
403	CCI.01.403009	your account is in arrears, please recharge	Request failed: The account is in arrears.	Top up the account.
403	CCI.01.403101	only gpu beta users can use gpu in cci	Request failed. You have not applied for the GPU OBT.	Apply for the GPU OBT.
403	CCI.01.403102	only obs beta users can use obs in cci	Request failed. You have not applied for the OBS OBT.	Apply for the OBS OBT.

Status Code	Error Codes	Error Message	Description	Measure
403	CCI.01.403103	user's token can not match auth token for resourceUser's	Authentication failed. The domain in the token does not match the requested domain.	Ensure that the domain in the token matches that in the request.
403	CCI.01.403104	current user has no right	Authentication failed. You do not have the permission to perform this operation.	Check whether you have the permission.
403	CCI.01.403105	insufficient operation permission, require cci:namespace:create	Failed to create the namespace. You do not have the cci:namespace:create permission.	Apply for the namespace create permission from the administrator.
403	CCI.01.403106	insufficient operation permission, require cci:namespace:delete	Failed to delete the namespace. You do not have the cci:namespace:delete permission.	Apply for the namespace delete permission from the administrator.

Status Code	Error Codes	Error Message	Description	Measure
403	CCI.01.403107	insufficient operation permission, require cci:namespace:update	Failed to update the namespace. You do not have the cci:namespace:update permission.	Apply for the namespace update permission from the administrator.
403	CCI.01.403108	insufficient operation permission, require cci:namespace:get	Failed to obtain the namespace details. You do not have the cci:namespace:get permission.	Apply for the namespace get permission from the administrator.
403	CCI.01.403109	insufficient operation permission, require cci:namespace:list	Failed to obtain the namespace list. You do not have the cci:namespace:list permission.	Apply for the namespace list permission from the administrator.
403	CCI.01.403110	insufficient operation permission, require cci:namespaceSubResource:create	Failed to create the resource. You do not have the cci:namespaceSubResource:create permission.	Apply for the namespaceSubResource create permission from the administrator.

Status Code	Error Codes	Error Message	Description	Measure
403	CCI.01.403111	insufficient operation permission, require cci:namespaceSubResource:delete	Failed to delete the resource. You do not have the cci:namespaceSubResource:delete permission.	Apply for the namespaceSubResource delete permission from the administrator.
403	CCI.01.40312	insufficient operation permission, require cci:namespaceSubResource:update	Failed to update the resource. You do not have the cci:namespaceSubResource:update permission.	Apply for the namespaceSubResource update permission from the administrator.
403	CCI.01.40313	insufficient operation permission, require cci:namespaceSubResource:get	Failed to obtain the resource details. You do not have the cci:namespaceSubResource:get permission.	Apply for the namespaceSubResource get permission from the administrator.

Status Code	Error Codes	Error Message	Description	Measure
403	CCI.01.403114	insufficient operation permission, require cci:namespaceSubResource:list	Failed to obtain the resource list. You do not have the cci:namespaceSubResource:list permission.	Apply for the namespaceSubResource list permission from the administrator.
404	CCI.01.40401	no agency found for user	Request failed. The queried agency does not exist.	Log in to the CCI console, select the corresponding region, and click <b>Agree</b> to authorize CCI to create an agency.
401	CCI.01.40102	user has no agency to cci. Please apply an agency to cci	Request failed. You have not authorized the CCI service.	Authorize the CCI service first.
403	CCI.04.40312	Chart must have same name and version with original chart	Failed to update the chart. The chart version and name must be the same as those in the original chart.	Ensure that the chart version and name are the same as those in the original chart.
403	CCI.04.40324	The official chart is forbidden to be downloaded	Failed to download the chart. Official charts cannot be downloaded.	Contact technical support.

Status Code	Error Codes	Error Message	Description	Measure
403	CCI.04.403125	Chart is used, can't deleted	Failed to delete the chart. The chart is in use.	Contact technical support.
403	CCI.04.403126	The chart is deprecated, please select a higher version	The selected chart version has expired.	Select a later version.
403	CCI.04.403129	Only add-on charts have readme.md now, the target chart is not an add-on chart	Operation failed. The chart associated with the readme.md file is not an add-on chart.	Associate it with an add-on chart.
403	CCI.04.403130	Not allowed to update chart belong to other tenant	Request failed. You cannot operate the charts of other users.	Do not operate the charts of other users.



Status Code	Error Codes	Error Message	Description	Measure
403	CCI.04.403131	Update release is forbidden: The status of release is not DEPLOYED or FAILED	Update failed. Only releases in the Installed or Failed status can be updated.	Contact technical support.
400	CCI.04.400104	Validate chart version failed	Request failed because the chart version is invalid. The version can contain a maximum of 64 characters and must comply with the SemVer specification, for example, 1.0.0, 1.0.0-alpha, and 1.0.0-alpha+001.	Specify a chart version that meets the version format requirements.
400	CCI.04.400105	the ID should not be empty	The chart ID cannot be left blank.	Enter a correct chart ID.
400	CCI.04.400111	Only add-on allowed	Request failed. This request supports only add-on charts.	Specify an add-on chart.

Status Code	Error Codes	Error Message	Description	Measure
400	CCI.04.400112	the length of ID is more than 64	Request failed. The chart ID cannot contain more than 64 characters.	Enter a correct chart ID.
400	CCI.04.400113	Chart ID format is Invalid, must match the regex	Request failed. The chart ID format is invalid.	Enter a correct chart ID.
400	CCI.04.400118	Validate chart failed	Request failed. The chart format is incorrect. The file name extension must be .tgz and the size cannot exceed 2 MB.	Specify a chart file with the .tgz extension and less than 2 MB.
400	CCI.04.400119	Chart file not found	Request failed. The chart is empty.	Specify a chart that is not empty.

Status Code	Error Codes	Error Message	Description	Measure
400	CCI.04.400121	Chart format is invalid, Chart package name and version must be same with chart name and version	The chart package format is invalid. The chart package name and version must be the same as those described in the chart.	Specify a chart package whose name and version are the same as those in the chart.
400	CCI.04.400126	No target version selected , select one please	Request failed. The add-on version is not specified.	Specify an add-on version.
400	CCI.04.400131	Unsupported language	Failed to delete the readme file. The language of the request parameters is not supported. Supported language: English	Ensure that the language of the readme file is English.
400	CCI.04.400201	Invalid release name	Request failed. The release name cannot be left blank.	Enter a correct release name.

Status Code	Error Codes	Error Message	Description	Measure
400	CCI.04.400202	Release name length error	Request failed. The release name cannot contain more than 24 characters.	Enter a correct release name.
400	CCI.04.400203	Release name not match regex	Request failed. The release name format is invalid. The release name can contain only letters, digits, and underscores (_) and must start with a letter and end with a letter or digit.	Enter a correct release name.
400	CCI.04.400214	The update action must be either upgrade or rollback	Failed to update the release because the requested action is invalid. Supported actions are upgrade and rollback.	Change the requested action to upgrade or rollback.
400	CCI.04.400218	Invalid release version	Request failed. Invalid release version.	Enter a correct version.

Status Code	Error Codes	Error Message	Description	Measure
400	CCI.04.400302	Failed to Unmarshal	Request failed. Invalid request body.	Specify a correct request body format.
400	CCI.04.400304	The request body is too large	Request failed. The chart package size exceeds 2 MB.	Ensure that the size of the chart package is less than 2 MB.
400	CCI.04.400306	Validate chart package failed	An error occurred when verifying the chart package.	Check whether the format of the YAML files in the package is correct.
404	CCI.04.404204	Release not found	Request failed. The release to be queried does not exist.	Query the correct application.
409	CCI.04.409112	The chart is already existed in database	Failed to upload the chart. The chart name already exists.	Change the chart name and try again.
409	CCI.04.409123	The chart name is conflict with public charts	Failed to upload the chart. The chart name conflicts with an official chart name.	Change the chart name and try again.

Status Code	Error Codes	Error Message	Description	Measure
409	CCI.04.409213	Release already exists in this cluster	Failed to create the release. The release name already exists.	Change the release name and try again.
400	CCI.02.400101	ummarshal ERROR: BadNamespaceRequestBody	Failed to create the namespace. The request body is incorrect.	Rectify the request body error based on the API document.
400	CCI.02.400102	get service account tenant name failed	Failed to obtain the tenant name. The tenant is not in the whitelist.	Obtain a tenant in the whitelist.
400	CCI.02.400103	Unsupported Content Type	The request contains an incorrect text type.	Specify a correct text type.
400	CCI.02.400104	ummarshal ERROR: BadQuotaRequestBody	Failed to create the quota. The request body is incorrect.	Specify a correct request body.
400	CCI.02.400105	update quotas failed	Failed to update the quota.	Contact technical support.

Status Code	Error Codes	Error Message	Description	Measure
400	CCI.02.400106	used namespaces exceeds quota, could not create any more	Failed to create the namespace. The namespace quota is insufficient.	Contact technical support.
400	CCI.02.400107	delete namespace failed, namespace is empty	Failed to delete the namespace. The namespace is empty and cannot be deleted.	Ensure that the namespace to be deleted is not empty.
400	CCI.02.400108	get flavor info by name failed, flavor name is empty	Failed to query flavor information by name. The <b>Name</b> field is empty.	Enter a correct value for the <b>Name</b> field.
400	CCI.02.400109	Create namespace failed: NamespaceNameInvalid	Failed to create the namespace. The <b>Name</b> field is invalid.	Enter a correct value for the <b>Name</b> field.
400	CCI.02.400110	Create namespace failed: NamespaceFlavorInvalid	Failed to create the namespace. The <b>Flavor</b> field is invalid.	Enter a correct value for the <b>Flavor</b> field.

Status Code	Error Codes	Error Message	Description	Measure
400	CCI.02.400111	Create namespace failed: NamespaceFlavorMissed	Failed to create the namespace. The <b>Flavor</b> field is empty.	Enter a correct value for the <b>Flavor</b> field.
400	CCI.02.400112	Create namespace failed: NamespaceDomainIDMissed	Failed to create the namespace. The <b>DomainID</b> field is empty.	Enter a correct value for the <b>DomainID</b> field.
400	CCI.02.400113	Create namespace failed: NamespaceProjectIDMissed	Failed to create the namespace. The <b>ProjectID</b> field is empty.	Enter a correct value for the <b>ProjectID</b> field.
400	CCI.02.400114	Get namespace failed: NamespaceProjectIDMissed	Failed to query the namespace. The <b>ProjectID</b> field is empty.	Enter a correct value for the <b>ProjectID</b> field.
400	CCI.02.400116	Get available cluster info from resource manager failed: NoAllocatedCluster	Failed to create the namespace. The cluster resource is insufficient. Try again later.	Contact technical support.



Status Code	Error Codes	Error Message	Description	Measure
400	CCI.02.400117	Get namespace failed: PaginationParameterInvalid	Failed to query the namespace. The pagination parameter is invalid.	Enter a correct pagination parameter.
400	CCI.02.400118	Create namespace failed: EnterpriseProjectIDEmpty	Failed to create the namespace. The <b>Enterprise Project ID</b> field is empty.	Enter a correct enterprise project ID.
400	CCI.02.400119	Create namespace failed: EnterpriseProjectNotSupported	Failed to create the namespace. Enterprise projects are not supported.	Contact technical support.
404	CCI.02.404101	flavor not found	Failed to query flavor information. The requested flavor does not exist.	Query the correct flavor.
404	CCI.02.404102	resource quota not found	Failed to query resource quota information. The requested resource quota does not exist.	Query the correct resource quota.

Status Code	Error Codes	Error Message	Description	Measure
404	CCI.02.404103	quota not found	Failed to query quota information. The requested quota does not exist.	Query the correct resource quota.
409	CCI.02.409101	namespace name is already exist	Failed to create the namespace. The namespace already exists.	Change the namespace name and try again.
409	CCI.02.409102	Failed to migrate the namespace	Failed to migrate the namespace. The namespace is already on a dedicated node.	Select a non-dedicated namespace.
500	CCI.03.500102	Internal error	Internal error. An error occurs during interaction with CSB.	Contact customer service or try again later.
500	CCI.03.500101	Return error	Return error. The return body fails to be converted into the JSON format.	Contact customer service or try again later.
500	CCI.03.500002	Database request error	Database request error.	Contact customer service or try again later.

Status Code	Error Codes	Error Message	Description	Measure
500	CCI.03.500001	An internal processing error occurs	Internal processing error.	Contact customer service or try again later.
400	CCI.03.400105	Request error	Request error. The package information is not carried.	Enter a valid order request.
400	CCI.03.400106	Request failed	Request failed. The current user is not eligible to purchase the package.	Contact customer service to apply for the purchase permission.
400	CCI.03.400107	Request failed	Request failed. The number of packages purchased by the user has reached the upper limit.	Purchase again after the current package is used up.
400	CCI.03.400108	Request failed	Request failed. The number of packages purchased by the user in the specified period has reached the upper limit.	Purchase again in the next period.

Status Code	Error Codes	Error Message	Description	Measure
400	CCI.02.400122	Failed to migrate the namespace.	Failed to migrate the namespace. The namespace status is abnormal.	Restore the namespace to the normal status and try again.
400	CCI.02.400121	Failed to migrate the namespace.	Failed to migrate the namespace. No dedicated node is available in the namespace.	Contact customer service to purchase a dedicated node.
400	CCI.03.400109	Request failed	Request failed. The remaining quantity of this package is insufficient.	Increase the package quota or reduce the purchase quantity.
400	CCI.02.400120	Failed to migrate the namespace.	Failed to migrate the namespace. The on-demand elastic bearer parameter is invalid.	Set a valid parameter.
400	CCI.03.400110	Request failed	Request failed. The promotion package is invalid.	Purchase a valid package.

Status Code	Error Codes	Error Message	Description	Measure
400	CCI.03.400111	Request failed	Request failed. The promotion activity ID is invalid because it is empty or too long.	Enter a valid promotion activity ID.
400	CCI.03.400001	The request does not carry a token	The request does not carry a token.	Enter a valid token in the request body.
400	CCI.03.400101	Request error	Request failed. The request body is invalid.	Enter a valid request body.
400	CCI.03.400102	Request error	Request error. Failed to parse the request body in JSON format.	Enter a valid order request.
400	CCI.03.400103	Request failed	Request failed. The token does not contain user information.	Enter a valid token.
400	CCI.03.400104	Request failed	Request failed. The POC package is invalid.	Purchase a valid package.

## 8.7 Obtaining a Project ID

### Scenarios

A project ID is required for some URLs when an API is called. Therefore, you need to obtain a project ID in advance. Two methods are available:

- [Obtain the Project ID by Calling an API](#)
- [Obtain the Project ID from the Console](#)

### Obtain the Project ID by Calling an API

You can obtain a project ID by calling the API used to [query projects based on specified criteria](#).

The API used to obtain a project ID is GET `https://{Endpoint}/v3/projects`. {Endpoint} is the IAM endpoint and can be obtained from [Regions and Endpoints](#). For details about API authentication, see [2.2 Authentication](#).

The following is an example response. The value of **id** is the project ID.

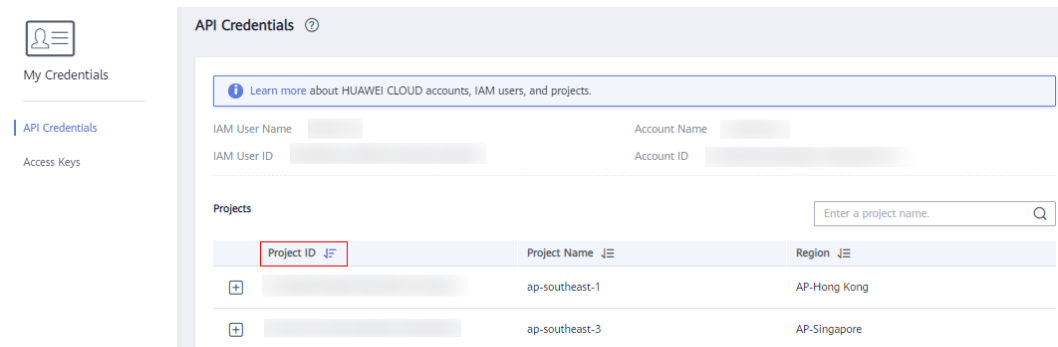
```
{
  "projects": [
    {
      "domain_id": "65ewtrgaggshhk1223245sghjlse684b",
      "is_domain": false,
      "parent_id": "65ewtrgaggshhk1223245sghjlse684b",
      "name": "project_name",
      "description": "",
      "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects/a4adasfjljaaakla12334jklga9sasfg"
      },
      "id": "a4adasfjljaaakla12334jklga9sasfg",
      "enabled": true
    }
  ],
  "links": {
    "next": null,
    "previous": null,
    "self": "https://www.example.com/v3/projects"
  }
}
```

### Obtain a Project ID from the Console

To obtain a project ID from the console, perform the following operations:

1. Log in to the management console.
2. Click the username and select **My Credentials** from the drop-down list.  
On the **API Credentials** page, view the project ID in the project list.

**Figure 8-8** Viewing the project ID



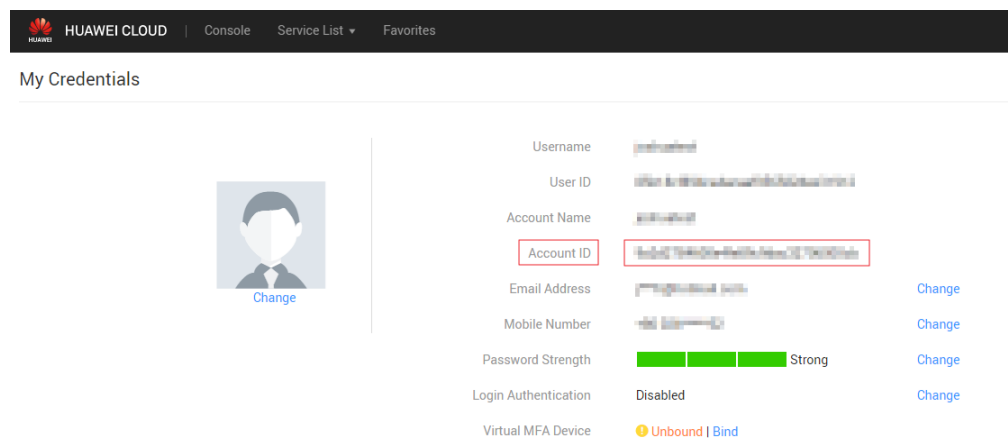
## 8.8 Obtaining an Account ID

An account ID (domain ID) is required for some URLs when an API is called. To obtain an account ID, perform the following operations:

1. Log in to the management console.
2. Click the username in the upper right corner and choose **My Credentials** from the drop-down list.

On the **My Credentials** page, view account ID.

**Figure 8-9** Obtaining your account ID



## 8.9 Obtaining a Container Image Address

Cloud Container Instance (CCI) supports both images in the container registry and those uploaded to SoftWare Repository for Container (SWR). Where,

- **SWR** has synchronized some common images from the container registry so that you can use the images named in the format of **Image name:Tag** (for example, **nginx:alpine**) on the internal network. You can query the synchronized images on the SWR console.
- SWR images can be obtained by using **Image Pull Command**. After an image is uploaded, you can obtain its address, as shown in the following figure.

Figure 8-10 Image address

The screenshot shows a web interface for managing container images. On the left is a navigation menu with items: Dashboard, My Images (selected), Image Resources, Organization Management, and Interactive Walkthroughs. The main content area displays details for an image named 'arm-test/nginx'. A summary table shows: Organization/Image Name: arm-test/nginx, Category: Other, Image Tags: 1, Downloads: 5,567, Created: Mar 03, 2020 14:03:31 GMT+08:00, Space Used: 118.0 MB, and Sharing Type: Private. Below this is a tabbed interface with 'Image Tags' selected. There are 'Synchronize' and 'Delete' buttons. A table lists the image tags:

<input type="checkbox"/>	Image Tag	Size	Updated	Image Pull Command
<input type="checkbox"/>	latest	118.0 MB	Mar 03, 2020 14:03:32 GMT+08:00	docker pull swr.cn-huaweicloud.com/myhuaweicloud/...



# 9 Out-of-Date APIs

---

## 9.1 Kubernetes APIs (Discarded)

### 9.1 Kubernetes APIs (Discarded)

#### NOTE

The APIs described in this section have been discarded. Use the APIs described in [5 Kubernetes APIs](#).

#### 9.1.1 Extended PersistentVolumeClaim

##### 9.1.1.1 Importing a Storage Device

###### Function

This API is used to import an existing storage device to a specified namespace.

Currently, **EVS**, **SFS**, **SFS Turbo**, and **OBS** volumes can be imported to CCI. The **spec.storageClassName** parameter specifies the volume type. It has the following values:

- **sata**: common I/O EVS volume
- **sas**: high I/O EVS volume
- **ssd**: ultra-high I/O EVS volume
- **nfs-rw**: Network File System (NFS) volume
- **efs-performance**: high-performance SFS Turbo volume
- **efs-standard**: standard SFS volume
- **obs**: OBS volume

 NOTE

- The reclaim policy is set to **DELETE**. To be specific, the storage is deleted immediately after the PVC is deleted. If you want to retain the storage, you can use [Unbinding a Storage Device](#).
- OBS provides object buckets and Parallel File Systems (PFSs). PFS is a high-performance file system provided by OBS, with access latency in milliseconds. PFS can support a bandwidth performance up to TB/s and supports millions of IOPS, outperforming OBS buckets. Therefore, **you are advised to use OBS parallel file systems instead of OBS buckets (when mounting these objects) in the production environment.**

## URI

POST /api/v1/namespaces/{namespace}/extended-persistentvolumeclaims

**Table 9-1** Path parameter

Parameter	Type	Description
namespace	String	Namespace to which the storage is to be imported.

## Request

### Request parameters

**Table 9-2** Data structure of PersistentVolumeClaim v1

Parameter	Mandatory	Type	Description
apiVersion	Yes	String	apiVersion defines the versioned schema of this representation of an object. Servers should convert recognized schemas to the latest internal value, and may reject unrecognized values.
kind	Yes	String	kind is a string value representing the REST resource this object represents. Servers may infer this from the endpoint the client submits requests to. Cannot be updated.
metadata	Yes	Object	Standard object's metadata. For details, see <a href="#">Table 6-131</a> . For details about the <b>annotations</b> field, see <a href="#">Table 9-3</a> .

Parameter	Mandatory	Type	Description
spec	Yes	Object	Spec defines the desired characteristics of a volume requested by a pod author. For details, see <a href="#">Table 6-298</a> .
status	No	Object	Status represents the current information/status of a persistent volume claim. Read-only. For details, see <a href="#">Table 6-299</a> .

**Table 9-3** Description of the metadata.annotations field

Parameter	Mandatory	Type	Description
fsType	Yes	String	Name of the file system. The value can be: <ul style="list-style-type: none"> <li>● <b>ext4</b>: EVS disk</li> <li>● <b>obs</b>: OBS bucket</li> <li>● <b>nfs</b>: SFS or SFS Turbo file system</li> </ul>
volumeID	Yes	String	Volume ID.
deviceMountPath	No	String	Shared path. <b>NOTE</b> Set this parameter only for SFS and SFS Turbo volumes.

### Example request

```
{
  "apiVersion": "v1",
  "kind": "PersistentVolumeClaim",
  "metadata": {
    "annotations": {
      "fsType": "nfs",
      "volumeID": "378dfa73-3ae4-4179-81c0-67699976b505",
      "deviceMountPath": "sfs-nas01.cn-north-4b.myhuaweicloud.com/share-84b38e4d"
    },
    "name": "cci-sfs-jxre8q80-ylpd",
    "namespace": "test-namespace"
  },
  "spec": {
    "resources": {
      "requests": {
        "storage": "10Gi"
      }
    },
    "storageClassName": "nfs-rw"
  }
}
```

## Response

### Response parameters

**Table 9-4** Response parameters

Parameter	Type	Description
PersistentVolumeClaim	Object	For details, see <a href="#">Table 6-296</a> .

### Example response

```
{
  "metadata": {
    "name": "pvc-import-efs",
    "namespace": "test-namespace",
    "selfLink": "/api/v1/namespaces/test-namespace/persistentvolumeclaims/pvc-import-efs",
    "uid": "17646a17-a471-11e9-be8a-b44326d0c915",
    "resourceVersion": "65016560",
    "creationTimestamp": "2019-07-12T06:48:44Z",
    "annotations": {
      "kubernetes.io/volumelid": "378dfa73-3ae4-4179-81c0-67699976b505"
    }
  },
  "spec": {
    "accessModes": [
      "ReadWriteMany"
    ],
    "resources": {
      "requests": {
        "storage": "10"
      }
    },
    "storageClassName": "sata"
  },
  "status": {
    "phase": "Pending"
  }
}
```

## Status Code

**Table 9-5** Status code

Status Code	Description
200	Export volume success.

For more status codes, see [Status Codes](#).

### 9.1.1.2 Reading Imported PVCs

#### Function

This API is used to query PVCs under a specified namespace.

## URI

GET /api/v1/namespaces/{namespace}/extended-persistentvolumeclaims

**Table 9-6** Path parameter

Parameter	Mandatory	Type	Description
namespace	Yes	String	Namespace for which PVCs are to be queried.

**Table 9-7** Query parameter

Parameter	Mandatory	Type	Description
storageType	No	String	Type of storage. The options are as follows: <ul style="list-style-type: none"> <li>• <b>bs</b>: EVS disk</li> <li>• <b>nfs</b>: SFS file system</li> <li>• <b>efs</b>: SFS Turbo file system</li> </ul> If this parameter is not specified, the PVC information of the <b>bs</b> type (EVS disk) in the current namespace is returned by default.

## Request

N/A

## Response

### Response parameters

**Table 9-8** Response

Parameter	Type	Description
PersistentVolumeClaim	Object	For details, see <a href="#">Table 6-296</a> .
PersistentVolume	Object	For details, see <a href="#">Table 6-305</a> .
StorageInfo	Object	For details, see <a href="#">Table 6-320</a> .

### Example response

```
[
  {
    "persistentVolumeClaim": {
      "metadata": {
        "name": "cci-evs-jxzqegxe-k1z3",
        "namespace": "test-namespace",
        "selfLink": "/api/v1/namespaces/csms/persistentvolumeclaims/cci-evs-jxzqegxe-k1z3",
        "uid": "e82c1574-a46d-11e9-be8a-b44326d0c915",
        "resourceVersion": "65003551",
        "creationTimestamp": "2019-07-12T06:25:56Z",
        "annotations": {
          "pv.kubernetes.io/bind-completed": "yes",
          "pv.kubernetes.io/bound-by-controller": "yes",
          "volume.beta.kubernetes.io/storage-provisioner": "flexvolume-huawei.com/fuxivol"
        },
        "finalizers": [
          "kubernetes.io/pvc-protection"
        ],
        "enable": true
      },
      "spec": {
        "accessModes": [
          "ReadWriteMany"
        ],
        "resources": {
          "requests": {
            "storage": "10Gi"
          }
        },
        "volumeName": "pvc-e82c1574-a46d-11e9-be8a-b44326d0c915",
        "storageClassName": "sata"
      },
      "status": {
        "phase": "Bound",
        "accessModes": [
          "ReadWriteMany"
        ],
        "capacity": {
          "storage": "10Gi"
        }
      }
    },
    "persistentVolume": {
      "metadata": {
        "name": "pvc-e82c1574-a46d-11e9-be8a-b44326d0c915",
        "selfLink": "/api/v1/persistentvolumes/pvc-e82c1574-a46d-11e9-be8a-b44326d0c915",
        "uid": "eb0a0ca1-a46d-11e9-be8a-b44326d0c915",
        "resourceVersion": "65003549",
        "creationTimestamp": "2019-07-12T06:26:01Z",
        "labels": {
          "tenant.kubernetes.io/domain-id": "f0c61dbd65974140956ed37a91ea860f",
          "tenant.kubernetes.io/project-id": "cdb4249297a44665a63eec4f27ad09bf"
        },
        "annotations": {
          "kubernetes.io/createdby": "huawei.com/fuxivol-dynamic-provisioner",
          "pv.kubernetes.io/bound-by-controller": "yes",
          "pv.kubernetes.io/namespace": "test-namespace",
          "pv.kubernetes.io/provisioned-by": "flexvolume-huawei.com/fuxivol",
          "tenant.kubernetes.io/domain-id": "f0c61dbd65974140956ed37a91ea860f",
          "tenant.kubernetes.io/project-id": "cdb4249297a44665a63eec4f27ad09bf"
        },
        "finalizers": [
          "kubernetes.io/pv-protection"
        ]
      },
      "spec": {
        "capacity": {
          "storage": "10Gi"
        }
      }
    }
  }
]
```

```
    "flexVolume": {
      "driver": "huawei.com/fuxivol",
      "fsType": "ext4",
      "options": {
        "fsType": "ext4",
        "volumeID": "06e10708-6412-4190-8496-f9531fb5fd0c"
      }
    },
    "accessModes": [
      "ReadWriteMany"
    ],
    "claimRef": {
      "kind": "PersistentVolumeClaim",
      "namespace": "test-namespace",
      "name": "cci-evs-jxzqegxe-k1z3",
      "uid": "e82c1574-a46d-11e9-be8a-b44326d0c915",
      "apiVersion": "v1",
      "resourceVersion": "65003516"
    },
    "persistentVolumeReclaimPolicy": "Delete",
    "storageClassName": "sata"
  },
  "status": {
    "phase": "Bound"
  }
},
"storageInfo": {
  "kind": "Volume",
  "apiVersion": "paas/v1beta1",
  "metadata": {
    "name": "pvc-e82c1574-a46d-11e9-be8a-b44326d0c915",
    "creationTimestamp": "2019-07-12T06:25:56Z",
    "labels": {
      "__system__volume_name": "pvc-e82c1574-a46d-11e9-be8a-b44326d0c915",
      "hw:passthrough": "true",
      "kubernetes.io/namespace": "test-namespace",
      "tenant.kubernetes.io/domain-id": "f0c61dbd65974140956ed37a91ea860f",
      "tenant.kubernetes.io/project-id": "cdb4249297a44665a63eec4f27ad09bf"
    }
  }
},
"spec": {
  "name": "pvc-e82c1574-a46d-11e9-be8a-b44326d0c915",
  "size": 10,
  "inresourcepool": false,
  "availability_zone": "cn-north-1a",
  "volume_type": "sata",
  "multiattach": true,
  "access": {
    "": {
      "access_type": "",
      "access_to": "",
      "access_level": "",
      "id": "",
      "state": ""
    }
  }
},
"vpc_id": ""
},
"status": {
  "id": "06e10708-6412-4190-8496-f9531fb5fd0c",
  "status": "available",
  "created_at": "2019-07-12T06:25:56Z",
  "attachments": null,
  "app_info": null
}
}
]
```

## Status Code

**Table 9-9** Status code

Status Code	Description
200	The query is successful and the result is returned.

For more status codes, see [Status Codes](#).

### 9.1.1.3 Unbinding a Storage Device

#### Function

This API is used to unbind a storage device from a specified namespace.

#### URI

DELETE /api/v1/namespaces/{namespace}/persistentvolumeclaims/{name}

**Table 9-10** Path parameter

Parameter	Mandatory	Type	Description
namespace	Yes	String	Namespace from which a storage device is to be unbound.
name	Yes	String	PVC name.

**Table 9-11** Query parameters

Parameter	Mandatory	Type	Description
deleteVolume	No	Boolean	Whether to delete the volume. The value can be <b>true</b> or <b>false</b> . <ul style="list-style-type: none"> <li><b>true</b>: Both the volume and its corresponding storage device are deleted.</li> <li><b>false</b>: Only the volume is deleted.</li> </ul>



Parameter	Mandatory	Type	Description
storageType	No	String	Type of storage. The options are as follows: <ul style="list-style-type: none"> <li>• <b>bs</b>: EVS disk</li> <li>• <b>nfs</b>: SFS file system</li> </ul> <b>NOTE</b> When <b>deleteVolume</b> is set to <b>true</b> , <b>storageType</b> is optional. When <b>deleteVolume</b> is set to <b>false</b> , <b>storageType</b> is mandatory.

## Request

N/A

## Response

N/A

## Status Code

Table 9-12 Status Code

Status Code	Description
200	The SFS file system is successfully deleted.

For more status codes, see [Status Codes](#).

## 9.1.2 TFJob

### 9.1.2.1 Creating a TFJob

#### Function

This API is used to create a TFJob.

TensorFlow Training (TFJob) is a TensorFlow-based Kubernetes custom resource that you can use to run standalone or distributed TensorFlow training jobs. For details about the open-source framework TensorFlow, visit <https://www.tensorflow.org>.

#### URI

POST /apis/kubeflow.org/v1/namespaces/{namespace}/tfjobs

**Table 9-13** Path parameter

Parameter	Mandatory	Description
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-14** Query parameter

Parameter	Mandatory	Description
pretty	No	If 'true', then the output is pretty printed.

## Request

### Request parameters

For the description about request parameters, see [Table 6-275](#).

### Example request

```
{
  "apiVersion": "kubeflow.org/v1",
  "kind": "TFJob",
  "metadata": {
    "name": "tfjob-test"
  },
  "spec": {
    "backoffLimit": 6,
    "tfReplicaSpecs": {
      "Ps": {
        "replicas": 1,
        "template": {
          "spec": {
            "containers": [
              {
                "args": [
                  "python",
                  "/opt/tf-benchmarks/scripts/tf_cnn_benchmarks/tf_cnn_benchmarks.py",
                  "--batch_size=1",
                  "--model=resnet50",
                  "--variable_update=parameter_server",
                  "--flush_stdout=true",
                  "--num_gpus=1",
                  "--local_parameter_device=cpu",
                  "--device=cpu",
                  "--data_format=NHWC"
                ],
                "image": "gcr.io/ml-org:20202/cci/tf-benchmarks-cpu:v1",
                "name": "tensorflow",
                "ports": [
                  {
                    "containerPort": 2222,
                    "name": "tfjob-port"
                  }
                ]
              }
            ],
            "resources": {
              "limits": {
                "cpu": "2",
                "memory": "4Gi"
              }
            }
          }
        }
      }
    }
  }
}
```



For the description about response parameters, see [Table 6-275](#).

### Example response

```
{
  "apiVersion": "kubeflow.org/v1",
  "kind": "TFJob",
  "metadata": {
    "creationTimestamp": "2019-07-23T12:39:47Z",
    "generation": 1,
    "name": "tfjob-test",
    "namespace": "kube-test",
    "resourceVersion": "72050567",
    "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/tfjobs/tfjob-test",
    "uid": "f461f966-ad46-11e9-aaa4-340a9837e413"
  },
  "spec": {
    "backoffLimit": 6,
    "tfReplicaSpecs": {
      "Ps": {
        "replicas": 1,
        "template": {
          "spec": {
            "containers": [
              {
                "args": [
                  "python",
                  "/opt/tf-benchmarks/scripts/tf_cnn_benchmarks/tf_cnn_benchmarks.py",
                  "--batch_size=1",
                  "--model=resnet50",
                  "--variable_update=parameter_server",
                  "--flush_stdout=true",
                  "--num_gpus=1",
                  "--local_parameter_device=cpu",
                  "--device=cpu",
                  "--data_format=NHWC"
                ],
                "image": "*/*.215:20202/cci/tf-benchmarks-cpu:v1",
                "name": "tensorflow",
                "ports": [
                  {
                    "containerPort": 2222,
                    "name": "tfjob-port"
                  }
                ],
                "resources": {
                  "limits": {
                    "cpu": "2",
                    "memory": "4Gi"
                  },
                  "requests": {
                    "cpu": "2",
                    "memory": "4Gi"
                  }
                }
              }
            ]
          }
        }
      },
      "imagePullSecrets": [
        {
          "name": "imagepull-secret"
        }
      ],
      "restartPolicy": "OnFailure"
    }
  },
  "Worker": {
    "replicas": 1,
    "template": {
      "spec": {
```



Status Code	Description
500	Internal error
403	Forbidden

### 9.1.2.2 Reading a TFJob

#### Function

This API is used to read the details about a specified TFJob.

#### URI

GET /apis/kubeflow.org/v1/namespaces/{namespace}/tfjobs/{name}

**Table 9-16** Path parameter

Parameter	Mandatory	Description
name	Yes	Name of the TFJob.
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-17** Query parameter

Parameter	Mandatory	Description
pretty	No	If 'true', then the output is pretty printed.

#### Request

N/A

#### Response

##### Response parameters

For the description about response parameters, see [Table 6-275](#).

##### Example response

```
{
  "apiVersion": "kubeflow.org/v1",
  "kind": "TFJob",
  "metadata": {
    "creationTimestamp": "2019-07-23T12:39:47Z",
    "generation": 1,
    "name": "tfjob-test",
```

```
"namespace": "kube-test",
"resourceVersion": "72050567",
"selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/tfjobs/tfjob-test",
"uid": "f461f966-ad46-11e9-aaa4-340a9837e413"
},
"spec": {
  "backoffLimit": 6,
  "tfReplicaSpecs": {
    "Ps": {
      "replicas": 1,
      "template": {
        "spec": {
          "containers": [
            {
              "args": [
                "python",
                "/opt/tf-benchmarks/scripts/tf_cnn_benchmarks/tf_cnn_benchmarks.py",
                "--batch_size=1",
                "--model=resnet50",
                "--variable_update=parameter_server",
                "--flush_stdout=true",
                "--num_gpus=1",
                "--local_parameter_device=cpu",
                "--device=cpu",
                "--data_format=NHWC"
              ],
              "image": "***.215:20202/cci/tf-benchmarks-cpu:v1",
              "name": "tensorflow",
              "ports": [
                {
                  "containerPort": 2222,
                  "name": "tfjob-port"
                }
              ],
              "resources": {
                "limits": {
                  "cpu": "2",
                  "memory": "4Gi"
                },
                "requests": {
                  "cpu": "2",
                  "memory": "4Gi"
                }
              }
            }
          ],
          "imagePullSecrets": [
            {
              "name": "imagepull-secret"
            }
          ],
          "restartPolicy": "OnFailure"
        }
      }
    },
    "Worker": {
      "replicas": 1,
      "template": {
        "spec": {
          "containers": [
            {
              "args": [
                "python",
                "/opt/tf-benchmarks/scripts/tf_cnn_benchmarks/tf_cnn_benchmarks.py",
                "--batch_size=1",
                "--model=resnet50",
                "--variable_update=parameter_server",
                "--flush_stdout=true",
                "--local_parameter_device=cpu",
```





## Status Code

**Table 9-18** Status codes

Status Code	Description
200	OK
401	Unauthorized
404	Not found
500	Internal error
403	Forbidden

### 9.1.2.3 Reading All TFJobs Under a Specified Namespace

#### Function

This API is used to read the details about all TFJobs under a specified namespace.

#### URI

GET /apis/kubeflow.org/v1/namespaces/{namespace}/tfjobs

**Table 9-19** Path parameter

Parameter	Mandatory	Description
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-20** Query parameters

Parameter	Mandatory	Description
fieldSelector	No	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Description
limit	No	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the continue field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested number of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>
resourceVersion	No	<p>When specified with a watch call, shows changes that occur after that particular version of a resource. Defaults to changes from the beginning of history. When specified for list: - if unset, then the result is returned from remote storage based on quorum-read flag; - if it is 0, then we simply return what we currently have in cache, no guarantee; - if set to non zero, then the result is at least as fresh as given rv.</p>
timeoutSeconds	No	<p>Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.</p>
watch	No	<p>Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.</p>

## Request

N/A

## Response

### Response parameters

For the description about response parameters, see [Table 6-289](#).

### Example response

```
{
  "apiVersion": "kubeflow.org/v1",
  "items": [
    {
      "apiVersion": "kubeflow.org/v1",
      "kind": "TFJob",
      "metadata": {
        "creationTimestamp": "2019-07-23T12:39:47Z",
        "generation": 1,
        "name": "tfjob-test",
        "namespace": "kube-test",
        "resourceVersion": "72050567",
        "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/tfjobs/tfjob-test",
        "uid": "f461f966-ad46-11e9-aaa4-340a9837e413"
      },
      "spec": {
        "backoffLimit": 6,
        "tfReplicaSpecs": {
          "Ps": {
            "replicas": 1,
            "template": {
              "spec": {
                "containers": [
                  {
                    "args": [
                      "python",
                      "/opt/tf-benchmarks/scripts/tf_cnn_benchmarks/tf_cnn_benchmarks.py",
                      "--batch_size=1",
                      "--model=resnet50",
                      "--variable_update=parameter_server",
                      "--flush_stdout=true",
                      "--num_gpus=1",
                      "--local_parameter_device=cpu",
                      "--device=cpu",
                      "--data_format=NHWC"
                    ],
                    "image": "**.*.215:20202/cci/tf-benchmarks-cpu:v1",
                    "name": "tensorflow",
                    "ports": [
                      {
                        "containerPort": 2222,
                        "name": "tfjob-port"
                      }
                    ],
                    "resources": {
                      "limits": {
                        "cpu": "2",
                        "memory": "4Gi"
                      },
                      "requests": {
                        "cpu": "2",
                        "memory": "4Gi"
                      }
                    }
                  }
                ]
              }
            }
          }
        }
      }
    }
  ],
}
```

```
        "imagePullSecrets": [
          {
            "name": "imagepull-secret"
          }
        ],
        "restartPolicy": "OnFailure"
      }
    },
    "Worker": {
      "replicas": 1,
      "template": {
        "spec": {
          "containers": [
            {
              "args": [
                "python",
                "/opt/tf-benchmarks/scripts/tf_cnn_benchmarks/tf_cnn_benchmarks.py",
                "--batch_size=1",
                "--model=resnet50",
                "--variable_update=parameter_server",
                "--flush_stdout=true",
                "--local_parameter_device=cpu",
                "--device=cpu",
                "--data_format=NHWC"
              ],
              "image": "***.215:20202/cci/tf-benchmarks-cpu:v1",
              "name": "tensorflow",
              "ports": [
                {
                  "containerPort": 2222,
                  "name": "tfjob-port"
                }
              ],
              "resources": {
                "limits": {
                  "cpu": "2",
                  "memory": "4Gi"
                },
                "requests": {
                  "cpu": "2",
                  "memory": "4Gi"
                }
              }
            }
          ],
          "imagePullSecrets": [
            {
              "name": "imagepull-secret"
            }
          ],
          "restartPolicy": "OnFailure"
        }
      }
    },
    "status": {
      "conditions": [
        {
          "lastTransitionTime": "2019-07-23T12:38:58Z",
          "lastUpdateTime": "2019-07-23T12:38:58Z",
          "message": "TFJob tfjob-test is created.",
          "reason": "TFJobCreated",
          "status": "True",
          "type": "Created"
        },
        {
          "lastTransitionTime": "2019-07-23T12:39:30Z",
```

```

        "lastUpdateTime": "2019-07-23T12:39:30Z",
        "message": "TFJob tfjob-test is running.",
        "reason": "TFJobRunning",
        "status": "True",
        "type": "Running"
      }
    ],
    "replicaStatuses": {
      "PS": {
        "active": 1
      },
      "Worker": {
        "active": 1
      }
    },
    "startTime": "2019-07-23T12:38:58Z"
  }
},
"kind": "TFJobList",
"metadata": {
  "continue": "",
  "resourceVersion": "72353810",
  "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/tfjobs"
}
}

```

## Status Code

**Table 9-21** Status codes

Status Code	Description
200	OK
401	Unauthorized
404	Not found
500	Internal error

### 9.1.2.4 Deleting All TFJobs Under a Namespace

#### Function

This API is used to delete all TFJobs under a specified namespace.

#### URI

DELETE /apis/kubeflow.org/v1/namespaces/{namespace}/tfjobs

**Table 9-22** Path parameter

Parameter	Mandatory	Description
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-23** Query parameters

Parameter	Mandatory	Description
fieldSelector	No	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	A selector to restrict the list of returned objects by their labels. Defaults to everything.
limit	No	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the continue field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested number of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>
resourceVersion	No	When specified with a watch call, shows changes that occur after that particular version of a resource. Defaults to changes from the beginning of history. When specified for list: - if unset, then the result is returned from remote storage based on quorum-read flag; - if it is 0, then we simply return what we currently have in cache, no guarantee; - if set to non zero, then the result is at least as fresh as given rv.
timeoutSeconds	No	Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.

Parameter	Mandatory	Description
watch	No	Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.

## Request

### Request parameters

N/A

## Response

### Response parameters

For the description about response parameters, see [Table 6-289](#).

### Example response

```
{
  "apiVersion": "kubeflow.org/v1",
  "items": [
    {
      "apiVersion": "kubeflow.org/v1",
      "kind": "TFJob",
      "metadata": {
        "creationTimestamp": "2019-07-23T12:39:47Z",
        "generation": 1,
        "name": "tfjob-test",
        "namespace": "kube-test",
        "resourceVersion": "72050567",
        "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/tfjobs/tfjob-test",
        "uid": "f461f966-ad46-11e9-aaa4-340a9837e413"
      },
      "spec": {
        "backoffLimit": 6,
        "tfReplicaSpecs": {
          "Ps": {
            "replicas": 1,
            "template": {
              "spec": {
                "containers": [
                  {
                    "args": [
                      "python",
                      "/opt/tf-benchmarks/scripts/tf_cnn_benchmarks/tf_cnn_benchmarks.py",
                      "--batch_size=1",
                      "--model=resnet50",
                      "--variable_update=parameter_server",
                      "--flush_stdout=true",
                      "--num_gpus=1",
                      "--local_parameter_device=cpu",
                      "--device=cpu",
                      "--data_format=NHWC"
                    ],
                    "image": "***.215:20202/cci/tf-benchmarks-cpu:v1",
                    "name": "tensorflow",
                    "ports": [
                      {
                        "containerPort": 2222,
                        "name": "tfjob-port"
                      }
                    ]
                  }
                ]
              }
            }
          }
        }
      }
    }
  ]
}
```

```
    ],
    "resources": {
      "limits": {
        "cpu": "2",
        "memory": "4Gi"
      },
      "requests": {
        "cpu": "2",
        "memory": "4Gi"
      }
    }
  },
  ],
  "imagePullSecrets": [
    {
      "name": "imagepull-secret"
    }
  ],
  "restartPolicy": "OnFailure"
}
},
"Worker": {
  "replicas": 1,
  "template": {
    "spec": {
      "containers": [
        {
          "args": [
            "python",
            "/opt/tf-benchmarks/scripts/tf_cnn_benchmarks/tf_cnn_benchmarks.py",
            "--batch_size=1",
            "--model=resnet50",
            "--variable_update=parameter_server",
            "--flush_stdout=true",
            "--local_parameter_device=cpu",
            "--device=cpu",
            "--data_format=NHWC"
          ],
          "image": "**.*.215:20202/cci/tf-benchmarks-cpu:v1",
          "name": "tensorflow",
          "ports": [
            {
              "containerPort": 2222,
              "name": "tfjob-port"
            }
          ],
          "resources": {
            "limits": {
              "cpu": "2",
              "memory": "4Gi"
            },
            "requests": {
              "cpu": "2",
              "memory": "4Gi"
            }
          }
        }
      ],
      "imagePullSecrets": [
        {
          "name": "imagepull-secret"
        }
      ],
      "restartPolicy": "OnFailure"
    }
  }
}
```



```

    },
    "status": {
      "conditions": [
        {
          "lastTransitionTime": "2019-07-23T12:38:58Z",
          "lastUpdateTime": "2019-07-23T12:38:58Z",
          "message": "TFJob tfjob-test is created.",
          "reason": "TFJobCreated",
          "status": "True",
          "type": "Created"
        },
        {
          "lastTransitionTime": "2019-07-23T12:39:30Z",
          "lastUpdateTime": "2019-07-23T12:39:30Z",
          "message": "TFJob tfjob-test is running.",
          "reason": "TFJobRunning",
          "status": "True",
          "type": "Running"
        }
      ],
      "replicaStatuses": {
        "PS": {
          "active": 1
        },
        "Worker": {
          "active": 1
        }
      },
      "startTime": "2019-07-23T12:38:58Z"
    }
  },
  "kind": "TFJobList",
  "metadata": {
    "continue": "",
    "resourceVersion": "72353810",
    "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/tfjobs"
  }
}

```

## Status Code

**Table 9-24** Status codes

Status Code	Description
200	OK
401	Unauthorized
500	Internal error

### 9.1.2.5 Deleting a TFJob

#### Function

This API is used to delete a specified TFJob.

#### URI

DELETE /apis/kubeflow.org/v1/namespaces/{namespace}/tfjobs/{name}

**Table 9-25** Path parameters

Parameter	Mandatory	Description
name	Yes	Name of the TFJob.
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-26** Query parameters

Parameter	Mandatory	Description
dryRun	No	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed.
gracePeriodSeconds	No	The duration in seconds before the object should be deleted. Value must be a non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
orphanDependents	No	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
propagationPolicy	No	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
pretty	No	If 'true', then the output is pretty printed.

## Request

N/A

## Response

### Response parameters

For the description about response parameters, see [Table 6-193](#).

### Example response

```
{
  "kind": "Status",
  "apiVersion": "v1",
  "metadata": {},
  "status": "Success",
  "details": {
    "name": "tfjob-test",
    "group": "kubeflow.org",
    "kind": "tfjobs",
    "uid": "f461f966-ad46-11e9-aaa4-340a9837e413"
  }
}
```

## Status Code

**Table 9-27** Status codes

Status Code	Description
200	OK
202	Accepted
401	Unauthorized
500	Internal Error
403	Forbidden

### 9.1.2.6 Updating a TFJob

#### Function

This API is used to update a specified TFJob. The following fields can be updated:

- metadata.labels
- metadata.annotations
- spec.activeDeadlineSeconds
- spec.ttlSecondsAfterFinished
- spec.cleanPodPolicy

#### URI

PATCH /apis/kubeflow.org/v1/namespaces/{namespace}/tfjobs/{name}

**Table 9-28** Path parameters

Parameter	Mandatory	Description
name	Yes	Name of the TFJob.
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-29** Query parameter

Parameter	Mandatory	Description
pretty	No	If 'true', then the output is pretty printed.

## Request

### Request parameters

For the description about the **Content-Type** field, see [8.1 Patch Request Method Operation Description](#).

 **NOTE**

Currently, only **Merge Patch** is supported.

### Example request

```
Content-Type: application/merge-patch+json
{
  "metadata": {
    "labels": {
      "app": "test"
    }
  }
}
```

## Response

### Response parameters

For the description about response parameters, see [Table 6-275](#).

### Example response

```
{
  "apiVersion": "kubeflow.org/v1",
  "kind": "TFJob",
  "metadata": {
    "creationTimestamp": "2019-07-24T07:17:01.000Z",
    "generation": 1,
    "labels": {
      "app": "test"
    },
    "name": "tfjob-test",
    "namespace": "kube-test",
    "resourceVersion": "72444814",
    "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/tfjobs/tfjob-test",
```

```
    "uid": "083cc6df-ade3-11e9-aaa4-340a9837e413"
  },
  "spec": {
    "backoffLimit": 6,
    "tfReplicaSpecs": {
      "Ps": {
        "replicas": 1,
        "template": {
          "spec": {
            "containers": [
              {
                "args": [
                  "python",
                  "/opt/tf-benchmarks/scripts/tf_cnn_benchmarks/tf_cnn_benchmarks.py",
                  "--batch_size=1",
                  "--model=resnet50",
                  "--variable_update=parameter_server",
                  "--flush_stdout=true",
                  "--num_gpus=1",
                  "--local_parameter_device=cpu",
                  "--device=cpu",
                  "--data_format=NHWC"
                ],
                "image": "**.*.215:20202/cci/tf-benchmarks-cpu:v1",
                "name": "tensorflow",
                "ports": [
                  {
                    "containerPort": 2222,
                    "name": "tfjob-port"
                  }
                ],
                "resources": {
                  "limits": {
                    "cpu": "2",
                    "memory": "4Gi"
                  },
                  "requests": {
                    "cpu": "2",
                    "memory": "4Gi"
                  }
                }
              }
            ],
            "imagePullSecrets": [
              {
                "name": "imagepull-secret"
              }
            ],
            "restartPolicy": "OnFailure"
          }
        }
      }
    },
    "Worker": {
      "replicas": 1,
      "template": {
        "spec": {
          "containers": [
            {
              "args": [
                "python",
                "/opt/tf-benchmarks/scripts/tf_cnn_benchmarks/tf_cnn_benchmarks.py",
                "--batch_size=1",
                "--model=resnet50",
                "--variable_update=parameter_server",
                "--flush_stdout=true",
                "--local_parameter_device=cpu",
                "--device=cpu",
                "--data_format=NHWC"
              ],
```



## Status Code

**Table 9-30** Status codes

Status Code	Description
200	OK
401	Unauthorized
500	Internal Error
403	Forbidden
409	Conflict
400	BadRequest

### 9.1.2.7 Replacing a TFJob

#### Function

This API is used to replace a specified TFJob. The following fields can be replaced:

- metadata.labels
- metadata.annotations
- spec.activeDeadlineSeconds
- spec.ttlSecondsAfterFinished
- spec.cleanPodPolicy

#### URI

PUT /apis/kubeflow.org/v1/namespaces/{namespace}/tfjobs/{name}

**Table 9-31** Path parameters

Parameter	Mandatory	Description
name	Yes	Name of the TFJob.
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-32** Query parameter

Parameter	Mandatory	Description
pretty	No	If 'true', then the output is pretty printed.

## Request

For the description about request parameters, see [Table 6-275](#).

### Example request

Change the **ttlSecondsAfterFinished** value of TFJob.

```
{
  "apiVersion": "kubeflow.org/v1",
  "kind": "TFJob",
  "metadata": {
    "creationTimestamp": "2019-07-24T07:17:01Z",
    "generation": 2,
    "labels": {
      "app": "test"
    },
    "name": "tfjob-test",
    "namespace": "kube-test",
    "resourceVersion": "72447176",
    "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/tfjobs/tfjob-test",
    "uid": "083cc6df-ade3-11e9-aaa4-340a9837e413"
  },
  "spec": {
    "backoffLimit": 6,
    "tfReplicaSpecs": {
      "Ps": {
        "replicas": 1,
        "template": {
          "spec": {
            "containers": [
              {
                "args": [
                  "python",
                  "/opt/tf-benchmarks/scripts/tf_cnn_benchmarks/tf_cnn_benchmarks.py",
                  "--batch_size=1",
                  "--model=resnet50",
                  "--variable_update=parameter_server",
                  "--flush_stdout=true",
                  "--num_gpus=1",
                  "--local_parameter_device=cpu",
                  "--device=cpu",
                  "--data_format=NHWC"
                ],
                "image": "*/*:215:20202/cci/tf-benchmarks-cpu:v1",
                "name": "tensorflow",
                "ports": [
                  {
                    "containerPort": 2222,
                    "name": "tfjob-port"
                  }
                ],
                "resources": {
                  "limits": {
                    "cpu": "2",
                    "memory": "4Gi"
                  },
                  "requests": {
                    "cpu": "2",
                    "memory": "4Gi"
                  }
                }
              }
            ]
          }
        }
      }
    },
    "imagePullSecrets": [
      {
        "name": "imagepull-secret"
      }
    ]
  },
}
```



```
        "restartPolicy": "OnFailure"
      }
    },
    "Worker": {
      "replicas": 1,
      "template": {
        "spec": {
          "containers": [
            {
              "args": [
                "python",
                "/opt/tf-benchmarks/scripts/tf_cnn_benchmarks/tf_cnn_benchmarks.py",
                "--batch_size=1",
                "--model=resnet50",
                "--variable_update=parameter_server",
                "--flush_stdout=true",
                "--local_parameter_device=cpu",
                "--device=cpu",
                "--data_format=NHWC"
              ],
              "image": "**:*215:20202/cqi/tf-benchmarks-cpu:v1",
              "name": "tensorflow",
              "ports": [
                {
                  "containerPort": 2222,
                  "name": "tfjob-port"
                }
              ],
              "resources": {
                "limits": {
                  "cpu": "2",
                  "memory": "4Gi"
                },
                "requests": {
                  "cpu": "2",
                  "memory": "4Gi"
                }
              }
            }
          ],
          "imagePullSecrets": [
            {
              "name": "imagepull-secret"
            }
          ],
          "restartPolicy": "OnFailure"
        }
      }
    },
    "ttlSecondsAfterFinished": 1000
  },
  "status": {
    "conditions": [
      {
        "lastTransitionTime": "2019-07-24T07:16:13Z",
        "lastUpdateTime": "2019-07-24T07:16:13Z",
        "message": "TFJob tfjob-test is created.",
        "reason": "TFJobCreated",
        "status": "True",
        "type": "Created"
      },
      {
        "lastTransitionTime": "2019-07-24T07:16:18Z",
        "lastUpdateTime": "2019-07-24T07:16:18Z",
        "message": "TFJob tfjob-test is running.",
        "reason": "TFJobRunning",
        "status": "True",
```

```
    "type": "Running"
  }
],
"replicaStatuses": {
  "PS": {
    "active": 1
  },
  "Worker": {
    "active": 1
  }
},
"startTime": "2019-07-24T07:16:13Z"
}
}
```

## Response

### Response parameters

For the description about response parameters, see [Table 6-275](#).

### Example response

```
{
  "apiVersion": "kubeflow.org/v1",
  "kind": "TFJob",
  "metadata": {
    "creationTimestamp": "2019-07-24T07:17:01Z",
    "generation": 2,
    "labels": {
      "app": "test"
    },
    "name": "tfjob-test",
    "namespace": "kube-test",
    "resourceVersion": "72447176",
    "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/tfjobs/tfjob-test",
    "uid": "083cc6df-ade3-11e9-aaa4-340a9837e413"
  },
  "spec": {
    "backoffLimit": 6,
    "tfReplicaSpecs": {
      "Ps": {
        "replicas": 1,
        "template": {
          "spec": {
            "containers": [
              {
                "args": [
                  "python",
                  "/opt/tf-benchmarks/scripts/tf_cnn_benchmarks/tf_cnn_benchmarks.py",
                  "--batch_size=1",
                  "--model=resnet50",
                  "--variable_update=parameter_server",
                  "--flush_stdout=true",
                  "--num_gpus=1",
                  "--local_parameter_device=cpu",
                  "--device=cpu",
                  "--data_format=NHWC"
                ],
                "image": "**.*.215:20202/cci/tf-benchmarks-cpu:v1",
                "name": "tensorflow",
                "ports": [
                  {
                    "containerPort": 2222,
                    "name": "tfjob-port"
                  }
                ],
                "resources": {
                  "limits": {
```

```
        "cpu": "2",
        "memory": "4Gi"
    },
    "requests": {
        "cpu": "2",
        "memory": "4Gi"
    }
}
},
"imagePullSecrets": [
    {
        "name": "imagepull-secret"
    }
],
"restartPolicy": "OnFailure"
}
},
"Worker": {
    "replicas": 1,
    "template": {
        "spec": {
            "containers": [
                {
                    "args": [
                        "python",
                        "/opt/tf-benchmarks/scripts/tf_cnn_benchmarks/tf_cnn_benchmarks.py",
                        "--batch_size=1",
                        "--model=resnet50",
                        "--variable_update=parameter_server",
                        "--flush_stdout=true",
                        "--local_parameter_device=cpu",
                        "--device=cpu",
                        "--data_format=NHWC"
                    ],
                    "image": "**:*215:20202/cci/tf-benchmarks-cpu:v1",
                    "name": "tensorflow",
                    "ports": [
                        {
                            "containerPort": 2222,
                            "name": "tfjob-port"
                        }
                    ],
                    "resources": {
                        "limits": {
                            "cpu": "2",
                            "memory": "4Gi"
                        },
                        "requests": {
                            "cpu": "2",
                            "memory": "4Gi"
                        }
                    }
                }
            ]
        },
        "imagePullSecrets": [
            {
                "name": "imagepull-secret"
            }
        ],
        "restartPolicy": "OnFailure"
    }
}
},
"ttlSecondsAfterFinished": 1000
},
"status": {
```

```

"conditions": [
  {
    "lastTransitionTime": "2019-07-24T07:16:13Z",
    "lastUpdateTime": "2019-07-24T07:16:13Z",
    "message": "TFJob tfjob-test is created.",
    "reason": "TFJobCreated",
    "status": "True",
    "type": "Created"
  },
  {
    "lastTransitionTime": "2019-07-24T07:16:18Z",
    "lastUpdateTime": "2019-07-24T07:16:18Z",
    "message": "TFJob tfjob-test is running.",
    "reason": "TFJobRunning",
    "status": "True",
    "type": "Running"
  }
],
"replicaStatuses": {
  "PS": {
    "active": 1
  },
  "Worker": {
    "active": 1
  }
},
"startTime": "2019-07-24T07:16:13Z"
}

```

## Status Code

**Table 9-33** Status codes

Status Code	Description
200	OK
201	Created
401	Unauthorized
400	BadRequest
500	Internal Error
403	Forbidden

## 9.1.3 MXJob

### 9.1.3.1 Creating an MXJob

#### Function

This API is used to create an MXJob.

MXNet job (MXJob) is an MXNet-based Kubernetes custom resource that you can use to run MXNet training jobs. For details about the open-source framework MXNet, visit <https://mxnet.incubator.apache.org/>.

## URI

POST /apis/kubeflow.org/v1/namespaces/{namespace}/mxjobs

**Table 9-34** Path parameter

Parameter	Mandatory	Description
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-35** Query parameter

Parameter	Mandatory	Description
pretty	No	If 'true', then the output is pretty printed.

## Request

### Request parameters

For the description about request parameters, see [Table 6-283](#).

### Example request

```
{
  "apiVersion": "kubeflow.org/v1",
  "kind": "MXJob",
  "metadata": {
    "name": "mxnet-job"
  },
  "spec": {
    "cleanPodPolicy": "Running",
    "jobMode": "MXTrain",
    "mxReplicaSpecs": {
      "Scheduler": {
        "replicas": 1,
        "restartPolicy": "Never",
        "template": {
          "spec": {
            "imagePullSecrets": [
              {
                "name": "imagepull-secret"
              }
            ],
            "containers": [
              {
                "name": "mxnet",
                "image": "***.215:20202/cci/mxnet:xsw-dis",
                "command": [
                  "/bin/bash"
                ],
                "args": [
                  "-c",
                  "python train_imagenet.py"
                ],
                "resources": {
                  "requests": {
                    "cpu": "1000m",
                    "memory": "2Gi"
                  }
                }
              }
            ]
          }
        }
      }
    }
  }
}
```

```

        },
        "limits": {
            "cpu": "1000m",
            "memory": "2Gi"
        }
    }
}
]
}
},
"Server": {
    "replicas": 1,
    "restartPolicy": "Never",
    "template": {
        "spec": {
            "imagePullSecrets": [
                {
                    "name": "imagepull-secret"
                }
            ],
            "containers": [
                {
                    "name": "mxnet",
                    "image": "**.*.215:20202/cci/mxnet:xsw-dis",
                    "command": [
                        "/bin/bash"
                    ],
                    "args": [
                        "-c",
                        "python train_imagenet.py"
                    ],
                    "resources": {
                        "requests": {
                            "cpu": "1000m",
                            "memory": "2Gi"
                        },
                        "limits": {
                            "cpu": "1000m",
                            "memory": "2Gi"
                        }
                    }
                }
            ]
        }
    }
},
"Worker": {
    "replicas": 1,
    "restartPolicy": "Never",
    "template": {
        "spec": {
            "imagePullSecrets": [
                {
                    "name": "imagepull-secret"
                }
            ],
            "containers": [
                {
                    "name": "mxnet",
                    "image": "**.*.215:20202/cci/mxnet:xsw-dis",
                    "command": [
                        "/bin/bash"
                    ],
                    "args": [
                        "-c",
                        "python train_imagenet.py --benchmark 1 --network resnet --batch-size 1 --num-epochs 1 --kv-store dist_sync --num-examples 500"
                    ],

```



```

    }
  ],
  "imagePullSecrets": [
    {
      "name": "imagepull-secret"
    }
  ]
}
},
"Server": {
  "replicas": 1,
  "restartPolicy": "Never",
  "template": {
    "spec": {
      "containers": [
        {
          "args": [
            "-c",
            "python train_imagenet.py"
          ],
          "command": [
            "/bin/bash"
          ],
          "image": "*/*.215:20202/cci/mxnet:xsw-dis",
          "name": "mxnet",
          "resources": {
            "limits": {
              "cpu": "1000m",
              "memory": "2Gi"
            },
            "requests": {
              "cpu": "1000m",
              "memory": "2Gi"
            }
          }
        }
      ]
    }
  },
  "imagePullSecrets": [
    {
      "name": "imagepull-secret"
    }
  ]
}
},
"Worker": {
  "replicas": 1,
  "restartPolicy": "Never",
  "template": {
    "spec": {
      "containers": [
        {
          "args": [
            "-c",
            "python train_imagenet.py --benchmark 1 --network resnet --batch-size 1 --num-epochs 1 --kv-store dist_sync --num-examples 500"
          ],
          "command": [
            "/bin/bash"
          ],
          "image": "*/*.215:20202/cci/mxnet:xsw-dis",
          "name": "mxnet",
          "resources": {
            "limits": {
              "cpu": "1000m",
              "memory": "2Gi"
            },
            "requests": {

```



```

        "cpu": "1000m",
        "memory": "2Gi"
      }
    ],
    "imagePullSecrets": [
      {
        "name": "imagepull-secret"
      }
    ]
  }
}
},
"status": {
}
}

```

## Status Code

**Table 9-36** Status codes

Status Code	Description
200	OK
201	Created
202	Accepted
401	Unauthorized
400	Badrequest
500	Internal error
403	Forbidden

### 9.1.3.2 Reading an MXJob

#### Function

This function is used to read the details about a specified MXJob.

#### URI

GET /apis/kubeflow.org/v1/namespaces/{namespace}/mxjobs/{name}

**Table 9-37** Path parameters

Parameter	Mandatory	Description
name	Yes	Name of the MXJob.

Parameter	Mandatory	Description
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-38** Query parameter

Parameter	Mandatory	Description
pretty	No	If 'true', then the output is pretty printed.

## Request

N/A

## Response

### Response parameters

For the description about response parameters, see [Table 6-283](#).

### Example response

```
{
  "apiVersion": "kubeflow.org/v1",
  "kind": "MXJob",
  "metadata": {
    "creationTimestamp": "2019-07-24T08:42:33Z",
    "generation": 1,
    "name": "mxnet-job",
    "namespace": "kube-test",
    "resourceVersion": "72476154",
    "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/mxjobs/mxnet-job",
    "uid": "fac6dcd2-adee-11e9-8041-340a9837e2a7"
  },
  "spec": {
    "cleanPodPolicy": "Running",
    "jobMode": "MXTrain",
    "mxReplicaSpecs": {
      "Scheduler": {
        "replicas": 1,
        "restartPolicy": "Never",
        "template": {
          "spec": {
            "containers": [
              {
                "args": [
                  "-c",
                  "python train_imagenet.py"
                ],
                "command": [
                  "/bin/bash"
                ],
                "image": "**.*.215:20202/cci/mxnet:xsw-dis",
                "name": "mxnet",
                "resources": {
                  "limits": {
                    "cpu": "1000m",

```

```
        "memory": "2Gi"
      },
      "requests": {
        "cpu": "1000m",
        "memory": "2Gi"
      }
    }
  ],
  "imagePullSecrets": [
    {
      "name": "imagepull-secret"
    }
  ]
}
},
"Server": {
  "replicas": 1,
  "restartPolicy": "Never",
  "template": {
    "spec": {
      "containers": [
        {
          "args": [
            "-c",
            "python train_imagenet.py"
          ],
          "command": [
            "/bin/bash"
          ],
          "image": "***.215:20202/cci/mxnet:xsw-dis",
          "name": "mxnet",
          "resources": {
            "limits": {
              "cpu": "1000m",
              "memory": "2Gi"
            },
            "requests": {
              "cpu": "1000m",
              "memory": "2Gi"
            }
          }
        }
      ]
    }
  },
  "imagePullSecrets": [
    {
      "name": "imagepull-secret"
    }
  ]
}
},
"Worker": {
  "replicas": 1,
  "restartPolicy": "Never",
  "template": {
    "spec": {
      "containers": [
        {
          "args": [
            "-c",
            "python train_imagenet.py --benchmark 1 --network resnet --batch-size 1 --num-epochs 1 --kv-store dist_sync --num-examples 500"
          ],
          "command": [
            "/bin/bash"
          ],
          "image": "***.215:20202/cci/mxnet:xsw-dis",
```



Status Code	Description
404	Not found
500	Internal error
403	Forbidden

### 9.1.3.3 Reading All MXJobs Under a Specified Namespace

#### Function

This API is used to read the details about all MXJobs under a specified namespace.

#### URI

GET /apis/kubeflow.org/v1/namespaces/{namespace}/mxjobs

**Table 9-40** Path parameter

Parameter	Mandatory	Description
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-41** Query parameter

Parameter	Mandatory	Description
fieldSelector	No	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Description
limit	No	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the continue field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested number of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>
resourceVersion	No	<p>When specified with a watch call, shows changes that occur after that particular version of a resource. Defaults to changes from the beginning of history. When specified for list: - if unset, then the result is returned from remote storage based on quorum-read flag; - if it is 0, then we simply return what we currently have in cache, no guarantee; - if set to non zero, then the result is at least as fresh as given rv.</p>
timeoutSeconds	No	<p>Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.</p>
watch	No	<p>Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.</p>

## Request

N/A

## Response

### Response parameters

For the description about response parameters, see [Table 6-290](#).

### Example response

```
{
  "apiVersion": "kubeflow.org/v1",
  "items": [
    {
      "apiVersion": "kubeflow.org/v1",
      "kind": "MXJob",
      "metadata": {
        "creationTimestamp": "2019-07-24T08:42:33Z",
        "generation": 1,
        "name": "mxnet-job",
        "namespace": "kube-test",
        "resourceVersion": "72476154",
        "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/mxjobs/mxnet-job",
        "uid": "fac6dcd2-adee-11e9-8041-340a9837e2a7"
      },
      "spec": {
        "cleanPodPolicy": "Running",
        "jobMode": "MXTrain",
        "mxReplicaSpecs": {
          "Scheduler": {
            "replicas": 1,
            "restartPolicy": "Never",
            "template": {
              "spec": {
                "containers": [
                  {
                    "args": [
                      "-c",
                      "python train_imagenet.py"
                    ],
                    "command": [
                      "/bin/bash"
                    ],
                    "image": "*.*.215:20202/cci/mxnet:xsw-dis",
                    "name": "mxnet",
                    "resources": {
                      "limits": {
                        "cpu": "1000m",
                        "memory": "2Gi"
                      },
                      "requests": {
                        "cpu": "1000m",
                        "memory": "2Gi"
                      }
                    }
                  }
                ]
              }
            }
          },
          "imagePullSecrets": [
            {
              "name": "imagepull-secret"
            }
          ]
        }
      }
    }
  ],
  "Server": {
```

```

"replicas": 1,
"restartPolicy": "Never",
"template": {
  "spec": {
    "containers": [
      {
        "args": [
          "-c",
          "python train_imagenet.py"
        ],
        "command": [
          "/bin/bash"
        ],
        "image": "**:*:215:20202/cci/mxnet:xsw-dis",
        "name": "mxnet",
        "resources": {
          "limits": {
            "cpu": "1000m",
            "memory": "2Gi"
          },
          "requests": {
            "cpu": "1000m",
            "memory": "2Gi"
          }
        }
      }
    ],
    "imagePullSecrets": [
      {
        "name": "imagepull-secret"
      }
    ]
  }
},
"Worker": {
  "replicas": 1,
  "restartPolicy": "Never",
  "template": {
    "spec": {
      "containers": [
        {
          "args": [
            "-c",
            "python train_imagenet.py --benchmark 1 --network resnet --batch-size 1 --
num-epochs 1 --kv-store dist_sync --num-examples 500"
          ],
          "command": [
            "/bin/bash"
          ],
          "image": "**:*:215:20202/cci/mxnet:xsw-dis",
          "name": "mxnet",
          "resources": {
            "limits": {
              "cpu": "1000m",
              "memory": "2Gi"
            },
            "requests": {
              "cpu": "1000m",
              "memory": "2Gi"
            }
          }
        }
      ],
      "imagePullSecrets": [
        {
          "name": "imagepull-secret"
        }
      ]
    }
  }
}

```



```

    }
  }
},
"status": {
  "conditions": [
    {
      "lastTransitionTime": "2019-07-24T08:42:33Z",
      "lastUpdateTime": "2019-07-24T08:42:33Z",
      "message": "MXJob mxnet-job is created.",
      "reason": "MXJobCreated",
      "status": "True",
      "type": "Created"
    },
    {
      "lastTransitionTime": "2019-07-24T08:42:33Z",
      "lastUpdateTime": "2019-07-24T08:42:52Z",
      "message": "MXJob mxnet-job is running.",
      "reason": "MXJobRunning",
      "status": "True",
      "type": "Running"
    }
  ],
  "mxReplicaStatuses": {
    "Scheduler": {
      "active": 1
    },
    "Server": {
      "active": 1
    },
    "Worker": {
      "active": 1
    }
  },
  "startTime": "2019-07-24T08:42:33Z"
}
},
"kind": "MXJobList",
"metadata": {
  "continue": "",
  "resourceVersion": "72478902",
  "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/mxjobs"
}
}

```

## Status Code

Table 9-42 Status codes

Status Code	Description
200	OK
401	Unauthorized
404	Not found
500	Internal error

### 9.1.3.4 Deleting All MXJobs Under a Namespace

#### Function

This API is used to delete all MXJobs under a specified namespace.

#### URI

DELETE /apis/kubeflow.org/v1/namespaces/{namespace}/mxjobs

**Table 9-43** Path parameter

Parameter	Mandatory	Description
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-44** Query parameters

Parameter	Mandatory	Description
fieldSelector	No	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Description
limit	No	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the continue field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested number of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>
resourceVersion	No	<p>When specified with a watch call, shows changes that occur after that particular version of a resource. Defaults to changes from the beginning of history. When specified for list: - if unset, then the result is returned from remote storage based on quorum-read flag; - if it is 0, then we simply return what we currently have in cache, no guarantee; - if set to non zero, then the result is at least as fresh as given rv.</p>
timeoutSeconds	No	<p>Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.</p>
watch	No	<p>Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.</p>

## Request

N/A

## Response

### Response parameters

For the description about response parameters, see [Table 6-193](#).

### Example response

```
{
  "apiVersion": "kubeflow.org/v1",
  "items": [
    {
      "apiVersion": "kubeflow.org/v1",
      "kind": "MXJob",
      "metadata": {
        "creationTimestamp": "2019-07-24T08:57:01Z",
        "generation": 1,
        "name": "mxnet-job",
        "namespace": "kube-test",
        "resourceVersion": "72481787",
        "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/mxjobs/mxnet-job",
        "uid": "001b5d2a-adf1-11e9-ba3a-b44326d0c915"
      },
      "spec": {
        "cleanPodPolicy": "Running",
        "jobMode": "MXTrain",
        "mxReplicaSpecs": {
          "Scheduler": {
            "replicas": 1,
            "restartPolicy": "Never",
            "template": {
              "spec": {
                "containers": [
                  {
                    "args": [
                      "-c",
                      "python train_imagenet.py"
                    ],
                    "command": [
                      "/bin/bash"
                    ],
                    "image": "*/*.215:20202/cci/mxnet:xsw-dis",
                    "name": "mxnet",
                    "resources": {
                      "limits": {
                        "cpu": "1000m",
                        "memory": "2Gi"
                      },
                      "requests": {
                        "cpu": "1000m",
                        "memory": "2Gi"
                      }
                    }
                  }
                ]
              }
            }
          },
          "imagePullSecrets": [
            {
              "name": "imagepull-secret"
            }
          ]
        }
      }
    }
  ],
  "Server": {
```

```

"replicas": 1,
"restartPolicy": "Never",
"template": {
  "spec": {
    "containers": [
      {
        "args": [
          "-c",
          "python train_imagenet.py"
        ],
        "command": [
          "/bin/bash"
        ],
        "image": "**:*:215:20202/cci/mxnet:xsw-dis",
        "name": "mxnet",
        "resources": {
          "limits": {
            "cpu": "1000m",
            "memory": "2Gi"
          },
          "requests": {
            "cpu": "1000m",
            "memory": "2Gi"
          }
        }
      }
    ],
    "imagePullSecrets": [
      {
        "name": "imagepull-secret"
      }
    ]
  }
},
"Worker": {
  "replicas": 1,
  "restartPolicy": "Never",
  "template": {
    "spec": {
      "containers": [
        {
          "args": [
            "-c",
            "python train_imagenet.py --benchmark 1 --network resnet --batch-size 1 --
num-epochs 1 --kv-store dist_sync --num-examples 500"
          ],
          "command": [
            "/bin/bash"
          ],
          "image": "**:*:215:20202/cci/mxnet:xsw-dis",
          "name": "mxnet",
          "resources": {
            "limits": {
              "cpu": "1000m",
              "memory": "2Gi"
            },
            "requests": {
              "cpu": "1000m",
              "memory": "2Gi"
            }
          }
        }
      ],
      "imagePullSecrets": [
        {
          "name": "imagepull-secret"
        }
      ]
    }
  }
}

```

```

    }
  }
},
"status": {
  "conditions": [
    {
      "lastTransitionTime": "2019-07-24T08:57:01Z",
      "lastUpdateTime": "2019-07-24T08:57:01Z",
      "message": "MXJob mxnet-job is created.",
      "reason": "MXJobCreated",
      "status": "True",
      "type": "Created"
    },
    {
      "lastTransitionTime": "2019-07-24T08:57:01Z",
      "lastUpdateTime": "2019-07-24T08:57:06Z",
      "message": "MXJob mxnet-job is running.",
      "reason": "MXJobRunning",
      "status": "True",
      "type": "Running"
    }
  ],
  "mxReplicaStatuses": {
    "Scheduler": {
      "active": 1
    },
    "Server": {
      "active": 1
    },
    "Worker": {
      "active": 1
    }
  },
  "startTime": "2019-07-24T08:57:01Z"
}
},
"kind": "MXJobList",
"metadata": {
  "continue": "",
  "resourceVersion": "72482111",
  "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/mxjobs"
}
}

```

## Status Code

**Table 9-45** describes the status codes of this API.

**Table 9-45** Status codes

Status Code	Description
200	OK
401	Unauthorized
500	Internal error

### 9.1.3.5 Deleting an MXJob

#### Function

This API is used to delete a specified MXJob.

#### URI

DELETE /apis/kubeflow.org/v1/namespaces/{namespace}/mxjobs/{name}

**Table 9-46** Path parameters

Parameter	Mandatory	Description
name	Yes	Name of the MXJob.
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-47** Query parameters

Parameter	Mandatory	Description
dryRun	No	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed.
gracePeriodSeconds	No	The duration in seconds before the object should be deleted. Value must be a non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.
orphanDependents	No	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.

Parameter	Mandatory	Description
propagationPolicy	No	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
pretty	No	If 'true', then the output is pretty printed.

## Request

N/A

## Response

### Response parameters

For the description about response parameters, see [Table 6-193](#).

### Example response

```
{
  "kind": "Status",
  "apiVersion": "v1",
  "metadata": {},
  "status": "Success",
  "details": {
    "name": "mxnet-job",
    "group": "kubeflow.org",
    "kind": "mxjobs",
    "uid": "fac6dcd2-adee-11e9-8041-340a9837e2a7"
  }
}
```

## Status Code

**Table 9-48** Status codes

Status Code	Description
200	OK
202	Accepted
401	Unauthorized
500	Internal Error
403	Forbidden



### 9.1.3.6 Updating an MXJob

#### Function

This API is used to update a specified MXJob. The following fields can be updated:

- metadata.labels
- metadata.annotations
- spec.activeDeadlineSeconds
- spec.ttlSecondsAfterFinished
- spec.cleanPodPolicy

#### URI

PATCH /apis/kubeflow.org/v1/namespaces/{namespace}/mxjobs/{name}

**Table 9-49** Path parameters

Parameter	Mandatory	Description
name	Yes	Name of the MXJob.
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-50** Query parameter

Parameter	Mandatory	Description
pretty	No	If 'true', then the output is pretty printed.

#### Request

##### Request parameters

For the description about the **Content-Type** field, see [8.1 Patch Request Method Operation Description](#).

##### NOTE

Currently, only **Merge Patch** is supported.

##### Example request

```
Content-Type: application/merge-patch+json
{
  "metadata": {
    "labels": {
      "app": "test"
    }
  }
}
```

```
}  
}  
}
```

## Response

### Response parameters

For the description about response parameters, see [Table 6-283](#).

### Example response

```
{  
  "apiVersion": "kubeflow.org/v1",  
  "kind": "MXJob",  
  "metadata": {  
    "creationTimestamp": "2019-07-24T08:58:47Z",  
    "generation": 1,  
    "labels": {  
      "app": "test"  
    },  
    "name": "mxnet-job",  
    "namespace": "kube-test",  
    "resourceVersion": "72482855",  
    "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/mxjobs/mxnet-job",  
    "uid": "3f304b53-adf1-11e9-8041-340a9837e2a7"  
  },  
  "spec": {  
    "cleanPodPolicy": "Running",  
    "jobMode": "MXTrain",  
    "mxReplicaSpecs": {  
      "Scheduler": {  
        "replicas": 1,  
        "restartPolicy": "Never",  
        "template": {  
          "spec": {  
            "containers": [  
              {  
                "args": [  
                  "-c",  
                  "python train_imagenet.py"  
                ],  
                "command": [  
                  "/bin/bash"  
                ],  
                "image": "**.*.215:20202/cci/mxnet:xsw-dis",  
                "name": "mxnet",  
                "resources": {  
                  "limits": {  
                    "cpu": "1000m",  
                    "memory": "2Gi"  
                  },  
                  "requests": {  
                    "cpu": "1000m",  
                    "memory": "2Gi"  
                  }  
                }  
              }  
            ]  
          },  
          "imagePullSecrets": [  
            {  
              "name": "imagepull-secret"  
            }  
          ]  
        }  
      }  
    },  
    "Server": {  
      "replicas": 1,  
    }  
  }  
}
```

```
"restartPolicy": "Never",
"template": {
  "spec": {
    "containers": [
      {
        "args": [
          "-c",
          "python train_imagenet.py"
        ],
        "command": [
          "/bin/bash"
        ],
        "image": "*/*.215:20202/cci/mxnet:xsw-dis",
        "name": "mxnet",
        "resources": {
          "limits": {
            "cpu": "1000m",
            "memory": "2Gi"
          },
          "requests": {
            "cpu": "1000m",
            "memory": "2Gi"
          }
        }
      }
    ],
    "imagePullSecrets": [
      {
        "name": "imagepull-secret"
      }
    ]
  }
},
"Worker": {
  "replicas": 1,
  "restartPolicy": "Never",
  "template": {
    "spec": {
      "containers": [
        {
          "args": [
            "-c",
            "python train_imagenet.py --benchmark 1 --network resnet --batch-size 1 --num-
epochs 1 --kv-store dist_sync --num-examples 500"
          ],
          "command": [
            "/bin/bash"
          ],
          "image": "*/*.215:20202/cci/mxnet:xsw-dis",
          "name": "mxnet",
          "resources": {
            "limits": {
              "cpu": "1000m",
              "memory": "2Gi"
            },
            "requests": {
              "cpu": "1000m",
              "memory": "2Gi"
            }
          }
        }
      ],
      "imagePullSecrets": [
        {
          "name": "imagepull-secret"
        }
      ]
    }
  }
}
```

```

    }
  }
},
"status": {
  "conditions": [
    {
      "lastTransitionTime": "2019-07-24T08:58:47Z",
      "lastUpdateTime": "2019-07-24T08:58:47Z",
      "message": "MXJob mxnet-job is created.",
      "reason": "MXJobCreated",
      "status": "True",
      "type": "Created"
    },
    {
      "lastTransitionTime": "2019-07-24T08:58:47Z",
      "lastUpdateTime": "2019-07-24T08:58:52Z",
      "message": "MXJob mxnet-job is running.",
      "reason": "MXJobRunning",
      "status": "True",
      "type": "Running"
    }
  ],
  "mxReplicaStatuses": {
    "Scheduler": {
      "active": 1
    },
    "Server": {
      "active": 1
    },
    "Worker": {
      "active": 1
    }
  },
  "startTime": "2019-07-24T08:58:47Z"
}
}

```

## Status Code

**Table 9-51** Status codes

Status Code	Description
200	OK
401	Unauthorized
500	Internal Error
403	Forbidden
409	Conflict
400	BadRequest

### 9.1.3.7 Replacing an MXJob

#### Function

This function is used to replace a specified MXJob. The following fields can be replaced:

- metadata.labels
- metadata.annotations
- spec.activeDeadlineSeconds
- spec.ttlSecondsAfterFinished
- spec.cleanPodPolicy

## URI

PUT /apis/kubeflow.org/v1/namespaces/{namespace}/mxjobs/{name}

**Table 9-52** Path parameters

Parameter	Mandatory	Description
name	Yes	Name of the MXJob.
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-53** Query parameter

Parameter	Mandatory	Description
pretty	No	If 'true', then the output is pretty printed.

## Request

### Request parameters

For the description about request parameters, see [Table 6-283](#).

### Example request

Change the **ttlSecondsAfterFinished** value of MXJob.

```
{
  "apiVersion": "kubeflow.org/v1",
  "kind": "MXJob",
  "metadata": {
    "creationTimestamp": "2019-07-29T03:34:33Z",
    "generation": 2,
    "name": "mxnet-job",
    "namespace": "kube-test",
    "resourceVersion": "75615427",
    "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/mxjobs/mxnet-job",
    "uid": "c82e664f-b1b1-11e9-b310-b44326d0c915"
  },
  "spec": {
    "cleanPodPolicy": "Running",
    "jobMode": "MXTrain",
    "mxReplicaSpecs": {
      "Scheduler": {
        "replicas": 1,
        "restartPolicy": "Never",
        "template": {
```

```

"spec": {
  "containers": [
    {
      "args": [
        "-c",
        "python train_imagenet.py"
      ],
      "command": [
        "/bin/bash"
      ],
      "image": "100.79.1.215:20202/paas_cci_w00427225/mxnet:xsw-dis",
      "name": "mxnet",
      "resources": {
        "limits": {
          "cpu": "1000m",
          "memory": "2Gi"
        },
        "requests": {
          "cpu": "1000m",
          "memory": "2Gi"
        }
      }
    }
  ],
  "imagePullSecrets": [
    {
      "name": "imagepull-secret"
    }
  ]
},
"Server": {
  "replicas": 1,
  "restartPolicy": "Never",
  "template": {
    "spec": {
      "containers": [
        {
          "args": [
            "-c",
            "python train_imagenet.py"
          ],
          "command": [
            "/bin/bash"
          ],
          "image": "100.79.1.215:20202/paas_cci_w00427225/mxnet:xsw-dis",
          "name": "mxnet",
          "resources": {
            "limits": {
              "cpu": "1000m",
              "memory": "2Gi"
            },
            "requests": {
              "cpu": "1000m",
              "memory": "2Gi"
            }
          }
        }
      ],
      "imagePullSecrets": [
        {
          "name": "imagepull-secret"
        }
      ]
    }
  }
},
"Worker": {

```

```

        "replicas": 1,
        "restartPolicy": "Never",
        "template": {
            "spec": {
                "containers": [
                    {
                        "args": [
                            "-c",
                            "python train_imagenet.py --benchmark 1 --network resnet --batch-size 1 --num-epochs 1 --kv-store dist_sync --num-examples 500"
                        ],
                        "command": [
                            "/bin/bash"
                        ],
                        "image": "100.79.1.215:20202/paas_cci_w00427225/mxnet:xsw-dis",
                        "name": "mxnet",
                        "resources": {
                            "limits": {
                                "cpu": "1000m",
                                "memory": "2Gi"
                            },
                            "requests": {
                                "cpu": "1000m",
                                "memory": "2Gi"
                            }
                        }
                    }
                ],
                "imagePullSecrets": [
                    {
                        "name": "imagepull-secret"
                    }
                ]
            }
        }
    },
    "ttlSecondsAfterFinished": 10000
},
"status": {
    "conditions": [
        {
            "lastTransitionTime": "2019-07-29T03:34:33Z",
            "lastUpdateTime": "2019-07-29T03:34:33Z",
            "message": "MXJob mxnet-job is created.",
            "reason": "MXJobCreated",
            "status": "True",
            "type": "Created"
        },
        {
            "lastTransitionTime": "2019-07-29T03:34:33Z",
            "lastUpdateTime": "2019-07-29T03:35:22Z",
            "message": "MXJob mxnet-job is running.",
            "reason": "MXJobRunning",
            "status": "True",
            "type": "Running"
        }
    ],
    "mxReplicaStatuses": {
        "Scheduler": {
            "active": 1
        },
        "Server": {
            "active": 1
        },
        "Worker": {
            "active": 1
        }
    }
},

```

```
    "startTime": "2019-07-29T03:34:33Z"  
  }  
}
```

## Response

### Response parameters

For the description about response parameters, see [Table 6-283](#).

### Example response

```
{  
  "apiVersion": "kubeflow.org/v1",  
  "kind": "MXJob",  
  "metadata": {  
    "creationTimestamp": "2019-07-29T03:34:33Z",  
    "generation": 2,  
    "name": "mxnet-job",  
    "namespace": "kube-test",  
    "resourceVersion": "75615427",  
    "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/mxjobs/mxnet-job",  
    "uid": "c82e664f-b1b1-11e9-b310-b44326d0c915"  
  },  
  "spec": {  
    "cleanPodPolicy": "Running",  
    "jobMode": "MXTrain",  
    "mxReplicaSpecs": {  
      "Scheduler": {  
        "replicas": 1,  
        "restartPolicy": "Never",  
        "template": {  
          "spec": {  
            "containers": [  
              {  
                "args": [  
                  "-c",  
                  "python train_imagenet.py"  
                ],  
                "command": [  
                  "/bin/bash"  
                ],  
                "image": "100.79.1.215:20202/paas_cci_w00427225/mxnet:xsw-dis",  
                "name": "mxnet",  
                "resources": {  
                  "limits": {  
                    "cpu": "1000m",  
                    "memory": "2Gi"  
                  },  
                  "requests": {  
                    "cpu": "1000m",  
                    "memory": "2Gi"  
                  }  
                }  
              }  
            ],  
            "imagePullSecrets": [  
              {  
                "name": "imagepull-secret"  
              }  
            ]  
          }  
        }  
      }  
    }  
  },  
  "Server": {  
    "replicas": 1,  
    "restartPolicy": "Never",  
    "template": {  
      "spec": {
```



```

"containers": [
  {
    "args": [
      "-c",
      "python train_imagenet.py"
    ],
    "command": [
      "/bin/bash"
    ],
    "image": "100.79.1.215:20202/paas_cci_w00427225/mxnet:xsw-dis",
    "name": "mxnet",
    "resources": {
      "limits": {
        "cpu": "1000m",
        "memory": "2Gi"
      },
      "requests": {
        "cpu": "1000m",
        "memory": "2Gi"
      }
    }
  }
],
"imagePullSecrets": [
  {
    "name": "imagepull-secret"
  }
]
},
"Worker": {
  "replicas": 1,
  "restartPolicy": "Never",
  "template": {
    "spec": {
      "containers": [
        {
          "args": [
            "-c",
            "python train_imagenet.py --benchmark 1 --network resnet --batch-size 1 --num-epochs 1 --kv-store dist_sync --num-examples 500"
          ],
          "command": [
            "/bin/bash"
          ],
          "image": "100.79.1.215:20202/paas_cci_w00427225/mxnet:xsw-dis",
          "name": "mxnet",
          "resources": {
            "limits": {
              "cpu": "1000m",
              "memory": "2Gi"
            },
            "requests": {
              "cpu": "1000m",
              "memory": "2Gi"
            }
          }
        }
      ]
    },
    "imagePullSecrets": [
      {
        "name": "imagepull-secret"
      }
    ]
  }
}
},
}
},
}

```

```

        "ttlSecondsAfterFinished": 10000
    },
    "status": {
        "conditions": [
            {
                "lastTransitionTime": "2019-07-29T03:34:33Z",
                "lastUpdateTime": "2019-07-29T03:34:33Z",
                "message": "MXJob mxnet-job is created.",
                "reason": "MXJobCreated",
                "status": "True",
                "type": "Created"
            },
            {
                "lastTransitionTime": "2019-07-29T03:34:33Z",
                "lastUpdateTime": "2019-07-29T03:35:22Z",
                "message": "MXJob mxnet-job is running.",
                "reason": "MXJobRunning",
                "status": "True",
                "type": "Running"
            }
        ],
        "mxReplicaStatuses": {
            "Scheduler": {
                "active": 1
            },
            "Server": {
                "active": 1
            },
            "Worker": {
                "active": 1
            }
        },
        "startTime": "2019-07-29T03:34:33Z"
    }
}

```

## Status Code

**Table 9-54** Status codes

Status Code	Description
200	OK
201	Created
401	Unauthorized
400	BadRequest
500	Internal Error
403	Forbidden

### 9.1.4 PyTorchJob

### 9.1.4.1 Creating a PyTorchJob

#### Function

This API is used to create a PyTorchJob.

PyTorch job (PyTorchJob) is a PyTorch-based Kubernetes custom resource that you can use to run PyTorch training jobs.

#### URI

POST /apis/kubeflow.org/v1/namespaces/{namespace}/pytorchjobs

**Table 9-55** Path parameter

Parameter	Mandatory	Description
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-56** Query parameters

Parameter	Mandatory	Description
pretty	No	If 'true', then the output is pretty printed.

#### Request

##### Request parameters

For the description about request parameters, see [Table 6-286](#).

##### Example request

```
{
  "apiVersion": "kubeflow.org/v1",
  "kind": "PyTorchJob",
  "metadata": {
    "name": "pytorch-test"
  },
  "spec": {
    "pytorchReplicaSpecs": {
      "Master": {
        "replicas": 1,
        "restartPolicy": "Never",
        "template": {
          "spec": {
            "containers": [
              {
                "name": "pytorch",
                "image": "***.215:20202/gcs/pytorch-cpu:v1",
                "command": [
                  "python",
                  "/var/mnist.py"
                ],
                "args": [
                  "--backend",

```

```
        "gloo"  
      ],  
      "resources": {  
        "limits": {  
          "cpu": 2,  
          "memory": "4Gi"  
        },  
        "requests": {  
          "cpu": 2,  
          "memory": "4Gi"  
        }  
      }  
    },  
    "imagePullSecrets": [  
      {  
        "name": "imagepull-secret"  
      }  
    ]  
  }  
},  
"Worker": {  
  "replicas": 1,  
  "restartPolicy": "OnFailure",  
  "template": {  
    "spec": {  
      "containers": [  
        {  
          "name": "pytorch",  
          "image": "*/*/215:20202/gcs/pytorch-cpu:v1",  
          "command": [  
            "python",  
            "/var/mnist.py"  
          ],  
          "args": [  
            "--backend",  
            "gloo"  
          ],  
          "resources": {  
            "limits": {  
              "cpu": 2,  
              "memory": "4Gi"  
            },  
            "requests": {  
              "cpu": 2,  
              "memory": "4Gi"  
            }  
          }  
        }  
      ],  
      "imagePullSecrets": [  
        {  
          "name": "imagepull-secret"  
        }  
      ]  
    }  
  }  
}
```

## Response

### Response parameters

For the description about response parameters, see [Table 6-286](#).

### Example response

```
{
  "apiVersion": "kubeflow.org/v1",
  "kind": "PyTorchJob",
  "metadata": {
    "creationTimestamp": "2019-07-24T10:29:45Z",
    "generation": 1,
    "name": "pytorch-test",
    "namespace": "kube-test",
    "resourceVersion": "72516798",
    "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/pytorchjobs/pytorch-test",
    "uid": "f4c79668-adfd-11e9-8041-340a9837e2a7"
  },
  "spec": {
    "pytorchReplicaSpecs": {
      "Master": {
        "replicas": 1,
        "restartPolicy": "Never",
        "template": {
          "spec": {
            "containers": [
              {
                "args": [
                  "--backend",
                  "gloo"
                ],
                "command": [
                  "python",
                  "/var/mnist.py"
                ],
                "image": "gcr.io/ml-org/pytorch-cpu:v1",
                "name": "pytorch",
                "resources": {
                  "limits": {
                    "cpu": 2,
                    "memory": "4Gi"
                  },
                  "requests": {
                    "cpu": 2,
                    "memory": "4Gi"
                  }
                }
              }
            ]
          }
        },
        "imagePullSecrets": [
          {
            "name": "imagepull-secret"
          }
        ]
      }
    },
    "Worker": {
      "replicas": 1,
      "restartPolicy": "OnFailure",
      "template": {
        "spec": {
          "containers": [
            {
              "args": [
                "--backend",
                "gloo"
              ],
              "command": [
                "python",
                "/var/mnist.py"
              ],
              "image": "gcr.io/ml-org/pytorch-cpu:v1",
              "name": "pytorch",
            }
          ]
        }
      }
    }
  }
}
```

```

        "resources": {
          "limits": {
            "cpu": 2,
            "memory": "4Gi"
          },
          "requests": {
            "cpu": 2,
            "memory": "4Gi"
          }
        }
      ],
      "imagePullSecrets": [
        {
          "name": "imagepull-secret"
        }
      ]
    }
  },
  "status": {
  }
}

```

## Status Code

Table 9-57 Status codes

Status Code	Description
200	OK
201	Created
202	Accepted
401	Unauthorized
400	Badrequest
500	Internal error
403	Forbidden

### 9.1.4.2 Reading a PyTorchJob

#### Function

This API is used to read the details about a specified PyTorchJob.

#### URI

GET /apis/kubeflow.org/v1/namespaces/{namespace}/pytorchjobs/{name}

**Table 9-58** Path parameters

Parameter	Mandatory	Description
name	Yes	Name of the PyTorchJob.
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-59** Query parameter

Parameter	Mandatory	Description
pretty	No	If 'true', then the output is pretty printed.

## Request

N/A

## Response

### Response parameters

For the description about response parameters, see [Table 6-286](#).

### Example response

```
{
  "apiVersion": "kubeflow.org/v1",
  "kind": "PyTorchJob",
  "metadata": {
    "creationTimestamp": "2019-07-24T10:29:45Z",
    "generation": 1,
    "name": "pytorch-test",
    "namespace": "kube-test",
    "resourceVersion": "72516798",
    "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/pytorchjobs/pytorch-test",
    "uid": "f4c79668-adfd-11e9-8041-340a9837e2a7"
  },
  "spec": {
    "pytorchReplicaSpecs": {
      "Master": {
        "replicas": 1,
        "restartPolicy": "Never",
        "template": {
          "spec": {
            "containers": [
              {
                "args": [
                  "--backend",
                  "gloo"
                ],
                "command": [
                  "python",
                  "/var/mnist.py"
                ],
                "image": "**.215:20202/gcs/pytorch-cpu:v1",
                "name": "pytorch",

```

```
        "resources": {
          "limits": {
            "cpu": 2,
            "memory": "4Gi"
          },
          "requests": {
            "cpu": 2,
            "memory": "4Gi"
          }
        }
      ],
      "imagePullSecrets": [
        {
          "name": "imagepull-secret"
        }
      ]
    }
  },
  "Worker": {
    "replicas": 1,
    "restartPolicy": "OnFailure",
    "template": {
      "spec": {
        "containers": [
          {
            "args": [
              "--backend",
              "gloo"
            ],
            "command": [
              "python",
              "/var/mnist.py"
            ],
            "image": "gcr.io/215:20202/gcs/pytorch-cpu:v1",
            "name": "pytorch",
            "resources": {
              "limits": {
                "cpu": 2,
                "memory": "4Gi"
              },
              "requests": {
                "cpu": 2,
                "memory": "4Gi"
              }
            }
          }
        ],
        "imagePullSecrets": [
          {
            "name": "imagepull-secret"
          }
        ]
      }
    }
  },
  "status": {
    "conditions": [
      {
        "lastTransitionTime": "2019-07-24T10:30:34Z",
        "lastUpdateTime": "2019-07-24T10:30:34Z",
        "message": "PyTorchJob pytorch-test is created.",
        "reason": "PyTorchJobCreated",
        "status": "True",
        "type": "Created"
      }
    ]
  }
}
```



```

    ],
    "replicaStatuses": {
      "Master": {}
    },
    "startTime": "2019-07-24T10:30:34Z"
  }
}

```

## Status Code

**Table 9-60** Status Code

Status Code	Description
200	OK
401	Unauthorized
404	Not found
500	Internal error
403	Forbidden

### 9.1.4.3 Reading All MXJobs Under a Specified Namespace

#### Function

Read the details about all PyTorchJobs under a specified namespace.

#### URI

GET /apis/kubeflow.org/v1/namespaces/{namespace}/pytorchjobs

**Table 9-61** Path parameters

Parameter	Mandatory	Description
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-62** Query parameter

Parameter	Mandatory	Description
fieldSelector	No	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Description
limit	No	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the continue field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested number of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>
resourceVersion	No	<p>When specified with a watch call, shows changes that occur after that particular version of a resource. Defaults to changes from the beginning of history. When specified for list: - if unset, then the result is returned from remote storage based on quorum-read flag; - if it is 0, then we simply return what we currently have in cache, no guarantee; - if set to non zero, then the result is at least as fresh as given rv.</p>
timeoutSeconds	No	<p>Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.</p>
watch	No	<p>Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.</p>

## Request

N/A

## Response

### Response parameters

For the description about response parameters, see [Table 6-291](#).

### Example response

```
{
  "apiVersion": "kubeflow.org/v1",
  "items": [
    {
      "apiVersion": "kubeflow.org/v1",
      "kind": "PyTorchJob",
      "metadata": {
        "creationTimestamp": "2019-07-24T10:29:45Z",
        "generation": 1,
        "name": "pytorch-test",
        "namespace": "kube-test",
        "resourceVersion": "72516798",
        "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/pytorchjobs/pytorch-test",
        "uid": "f4c79668-adfd-11e9-8041-340a9837e2a7"
      },
      "spec": {
        "pytorchReplicaSpecs": {
          "Master": {
            "replicas": 1,
            "restartPolicy": "Never",
            "template": {
              "spec": {
                "containers": [
                  {
                    "args": [
                      "--backend",
                      "gloo"
                    ],
                    "command": [
                      "python",
                      "/var/mnist.py"
                    ],
                    "image": "**.*.215:20202/gcs/pytorch-cpu:v1",
                    "name": "pytorch",
                    "resources": {
                      "limits": {
                        "cpu": 2,
                        "memory": "4Gi"
                      },
                      "requests": {
                        "cpu": 2,
                        "memory": "4Gi"
                      }
                    }
                  }
                ]
              }
            }
          },
          "imagePullSecrets": [
            {
              "name": "imagepull-secret"
            }
          ]
        }
      }
    },
    {
      "Worker": {
        "replicas": 1,
```

```

"restartPolicy": "OnFailure",
"template": {
  "spec": {
    "containers": [
      {
        "args": [
          "--backend",
          "gloo"
        ],
        "command": [
          "python",
          "/var/mnist.py"
        ],
        "image": "**:*:215:20202/gcs/pytorch-cpu:v1",
        "name": "pytorch",
        "resources": {
          "limits": {
            "cpu": 2,
            "memory": "4Gi"
          },
          "requests": {
            "cpu": 2,
            "memory": "4Gi"
          }
        }
      }
    ],
    "imagePullSecrets": [
      {
        "name": "imagepull-secret"
      }
    ]
  }
}
},
"status": {
  "conditions": [
    {
      "lastTransitionTime": "2019-07-24T10:30:34Z",
      "lastUpdateTime": "2019-07-24T10:30:34Z",
      "message": "PyTorchJob pytorch-test is created.",
      "reason": "PyTorchJobCreated",
      "status": "True",
      "type": "Created"
    }
  ],
  "replicaStatuses": {
    "Master": {}
  },
  "startTime": "2019-07-24T10:30:34Z"
}
},
"kind": "PyTorchJobList",
"metadata": {
  "continue": "",
  "resourceVersion": "72517974",
  "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/pytorchjobs"
}
}

```

## Status Code

**Table 9-63** Status Code

Status Code	Description
200	OK
401	Unauthorized
404	Not found
500	Internal error

### 9.1.4.4 Deleting All PyTorchJobs Under a Namespace

#### Function

This API is used to delete all PyTorchJobs under a specified namespace.

#### URI

DELETE /apis/kubeflow.org/v1/namespaces/{namespace}/pytorchjobs

**Table 9-64** Path parameter

Parameter	Mandatory	Description
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-65** Query parameters

Parameter	Mandatory	Description
fieldSelector	No	A selector to restrict the list of returned objects by their fields. Defaults to everything.
labelSelector	No	A selector to restrict the list of returned objects by their labels. Defaults to everything.

Parameter	Mandatory	Description
limit	No	<p>limit is a maximum number of responses to return for a list call. If more items exist, the server will set the continue field on the list metadata to a value that can be used with the same initial query to retrieve the next set of results. Setting a limit may return fewer than the requested number of items (up to zero items) in the event all requested objects are filtered out and clients should only use the presence of the continue field to determine whether more results are available. Servers may choose not to support the limit argument and will return all of the available results. If limit is specified and the continue field is empty, clients may assume that no more results are available. This field is not supported if watch is true.</p> <p>The server guarantees that the objects returned when using continue will be identical to issuing a single list call without a limit - that is, no objects created, modified, or deleted after the first request is issued will be included in any subsequent continued requests. This is sometimes referred to as a consistent snapshot, and ensures that a client that is using limit to receive smaller chunks of a very large result can ensure they see all possible objects. If objects are updated during a chunked list the version of the object that was present at the time the first list result was calculated is returned.</p>
resourceVersion	No	<p>When specified with a watch call, shows changes that occur after that particular version of a resource. Defaults to changes from the beginning of history. When specified for list: - if unset, then the result is returned from remote storage based on quorum-read flag; - if it is 0, then we simply return what we currently have in cache, no guarantee; - if set to non zero, then the result is at least as fresh as given rv.</p>
timeoutSeconds	No	<p>Timeout for the list/watch call. This limits the duration of the call, regardless of any activity or inactivity.</p>
watch	No	<p>Watch for changes to the described resources and return them as a stream of add, update, and remove notifications. Specify resourceVersion.</p>

## Request

N/A

## Response

### Response parameters

For the description about response parameters, see [Table 6-291](#).

### Example response

```
{
  "apiVersion": "kubeflow.org/v1",
  "items": [
    {
      "apiVersion": "kubeflow.org/v1",
      "kind": "PyTorchJob",
      "metadata": {
        "creationTimestamp": "2019-07-24T10:29:45Z",
        "generation": 1,
        "name": "pytorch-test",
        "namespace": "kube-test",
        "resourceVersion": "72516798",
        "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/pytorchjobs/pytorch-test",
        "uid": "f4c79668-adfd-11e9-8041-340a9837e2a7"
      },
      "spec": {
        "pytorchReplicaSpecs": {
          "Master": {
            "replicas": 1,
            "restartPolicy": "Never",
            "template": {
              "spec": {
                "containers": [
                  {
                    "args": [
                      "--backend",
                      "gloo"
                    ],
                    "command": [
                      "python",
                      "/var/mnist.py"
                    ],
                    "image": "**.*.215:20202/gcs/pytorch-cpu:v1",
                    "name": "pytorch",
                    "resources": {
                      "limits": {
                        "cpu": 2,
                        "memory": "4Gi"
                      },
                      "requests": {
                        "cpu": 2,
                        "memory": "4Gi"
                      }
                    }
                  }
                ]
              }
            }
          },
          "imagePullSecrets": [
            {
              "name": "imagepull-secret"
            }
          ]
        }
      },
      "Worker": {
        "replicas": 1,
```

```
    "restartPolicy": "OnFailure",
    "template": {
      "spec": {
        "containers": [
          {
            "args": [
              "--backend",
              "gloo"
            ],
            "command": [
              "python",
              "/var/mnist.py"
            ],
            "image": "**:*:215:20202/gcs/pytorch-cpu.v1",
            "name": "pytorch",
            "resources": {
              "limits": {
                "cpu": 2,
                "memory": "4Gi"
              },
              "requests": {
                "cpu": 2,
                "memory": "4Gi"
              }
            }
          }
        ],
        "imagePullSecrets": [
          {
            "name": "imagepull-secret"
          }
        ]
      }
    }
  },
  "status": {
    "conditions": [
      {
        "lastTransitionTime": "2019-07-24T10:30:34Z",
        "lastUpdateTime": "2019-07-24T10:30:34Z",
        "message": "PyTorchJob pytorch-test is created.",
        "reason": "PyTorchJobCreated",
        "status": "True",
        "type": "Created"
      }
    ],
    "replicaStatuses": {
      "Master": {}
    },
    "startTime": "2019-07-24T10:30:34Z"
  }
},
"kind": "PyTorchJobList",
"metadata": {
  "continue": "",
  "resourceVersion": "72518429",
  "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/pytorchjobs"
}
}
```



## Status Code

**Table 9-66** Status codes

Status Code	Description
200	OK
401	Unauthorized
500	Internal error

### 9.1.4.5 Deleting a PyTorchJob

#### Function

This API is used to delete a specified PyTorchJob.

#### URI

DELETE /apis/kubeflow.org/v1/namespaces/{namespace}/pytorchjobs/{name}

**Table 9-67** Path parameters

Parameter	Mandatory	Description
name	Yes	Name of the PyTorchJob.
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-68** Query parameters

Parameter	Mandatory	Description
dryRun	No	When present, indicates that modifications should not be persisted. An invalid or unrecognized dryRun directive will result in an error response and no further processing of the request. Valid values are: - All: all dry run stages will be processed.
gracePeriodSeconds	No	The duration in seconds before the object should be deleted. Value must be a non-negative integer. The value zero indicates delete immediately. If this value is nil, the default grace period for the specified type will be used. Defaults to a per object value if not specified. zero means delete immediately.

Parameter	Mandatory	Description
orphanDependents	No	Deprecated: please use the PropagationPolicy, this field will be deprecated in 1.7. Should the dependent objects be orphaned. If true/false, the "orphan" finalizer will be added to/removed from the object's finalizers list. Either this field or PropagationPolicy may be set, but not both.
propagationPolicy	No	Whether and how garbage collection will be performed. Either this field or OrphanDependents may be set, but not both. The default policy is decided by the existing finalizer set in the metadata.finalizers and the resource-specific default policy. Acceptable values are: 'Orphan' - orphan the dependents; 'Background' - allow the garbage collector to delete the dependents in the background; 'Foreground' - a cascading policy that deletes all dependents in the foreground.
pretty	No	If 'true', then the output is pretty printed.

## Request

N/A

## Response

### Response parameters

For the description about response parameters, see [Table 6-193](#).

### Example response

```
{
  "kind": "Status",
  "apiVersion": "v1",
  "metadata": {},
  "status": "Success",
  "details": {
    "name": "pytorch-test",
    "group": "kubeflow.org",
    "kind": "pytorchjobs",
    "uid": "be7696f9-adfe-11e9-aaa4-340a9837e413"
  }
}
```

## Status Code

**Table 9-69** Status codes

Status Code	Description
200	OK

Status Code	Description
202	Accepted
401	Unauthorized
500	Internal Error
403	Forbidden

### 9.1.4.6 Updating a PyTorchJob

#### Function

This API is used to update a specified PyTorchJob. The following fields can be updated:

- metadata.labels
- metadata.annotations
- spec.activeDeadlineSeconds
- spec.ttlSecondsAfterFinished
- spec.cleanPodPolicy

#### URI

PATCH /apis/kubeflow.org/v1/namespaces/{namespace}/pytorchjobs/{name}

**Table 9-70** Path parameters

Parameter	Mandatory	Description
name	Yes	Name of the PyTorchJob.
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-71** Query parameter

Parameter	Mandatory	Description
pretty	No	If 'true', then the output is pretty printed.

#### Request

##### Request parameters

For the description about the **Content-Type** field, see [8.1 Patch Request Method Operation Description](#).

 NOTE

Currently, only **Merge Patch** is supported.

**Example request**

```
Content-Type: application/merge-patch+json
{
  "metadata": {
    "labels": {
      "app": "test"
    }
  }
}
```

**Response****Response parameters**

For the description about response parameters, see [Table 6-286](#).

**Example response**

```
{
  "apiVersion": "kubeflow.org/v1",
  "kind": "PyTorchJob",
  "metadata": {
    "creationTimestamp": "2019-07-24T10:35:38Z",
    "generation": 1,
    "labels": {
      "app": "test"
    },
    "name": "pytorch-test",
    "namespace": "kube-test",
    "resourceVersion": "72519229",
    "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/pytorchjobs/pytorch-test",
    "uid": "c6e548f1-adfe-11e9-ba3a-b44326d0c915"
  },
  "spec": {
    "pytorchReplicaSpecs": {
      "Master": {
        "replicas": 1,
        "restartPolicy": "Never",
        "template": {
          "spec": {
            "containers": [
              {
                "args": [
                  "--backend",
                  "gloo"
                ],
                "command": [
                  "python",
                  "/var/mnist.py"
                ],
                "image": "**.*.215:20202/gcs/pytorch-cpu:v1",
                "name": "pytorch",
                "resources": {
                  "limits": {
                    "cpu": 2,
                    "memory": "4Gi"
                  },
                  "requests": {
                    "cpu": 2,
                    "memory": "4Gi"
                  }
                }
              }
            ]
          }
        }
      }
    }
  }
}
```

```
    ],
    "imagePullSecrets": [
      {
        "name": "imagepull-secret"
      }
    ]
  }
},
"Worker": {
  "replicas": 1,
  "restartPolicy": "OnFailure",
  "template": {
    "spec": {
      "containers": [
        {
          "args": [
            "--backend",
            "gloo"
          ],
          "command": [
            "python",
            "/var/mnist.py"
          ],
          "image": "**.*.215:20202/gcs/pytorch-cpu:v1",
          "name": "pytorch",
          "resources": {
            "limits": {
              "cpu": 2,
              "memory": "4Gi"
            },
            "requests": {
              "cpu": 2,
              "memory": "4Gi"
            }
          }
        }
      ]
    }
  },
  "imagePullSecrets": [
    {
      "name": "imagepull-secret"
    }
  ]
}
},
"status": {
  "conditions": [
    {
      "lastTransitionTime": "2019-07-24T10:36:26Z",
      "lastUpdateTime": "2019-07-24T10:36:26Z",
      "message": "PyTorchJob pytorch-test is created.",
      "reason": "PyTorchJobCreated",
      "status": "True",
      "type": "Created"
    }
  ],
  "replicaStatuses": {
    "Master": {}
  },
  "startTime": "2019-07-24T10:36:26Z"
}
}
```

## Status Code

**Table 9-72** Status codes

Status Code	Description
200	OK
401	Unauthorized
500	Internal Error
403	Forbidden
409	Conflict
400	BadRequest

### 9.1.4.7 Replacing a PyTorchJob

#### Function

This API is used to replace a specified PyTorchJob. The following fields can be replaced:

- metadata.labels
- metadata.annotations
- spec.activeDeadlineSeconds
- spec.ttlSecondsAfterFinished
- spec.cleanPodPolicy

#### URI

PUT /apis/kubeflow.org/v1/namespaces/{namespace}/pytorchjobs/{name}

**Table 9-73** Path parameters

Parameter	Mandatory	Description
name	Yes	Name of the PyTorchJob.
namespace	Yes	Object name and auth scope, such as for teams and projects.

**Table 9-74** Query parameter

Parameter	Mandatory	Description
pretty	No	If 'true', then the output is pretty printed.

## Request

### Request parameters

For the description about request parameters, see [Table 6-286](#).

### Example request

Change the **tllSecondsAfterFinished** value of PyTorchJob.

```
{
  "apiVersion": "kubeflow.org/v1",
  "kind": "PyTorchJob",
  "metadata": {
    "creationTimestamp": "2019-07-24T10:35:38Z",
    "generation": 2,
    "labels": {
      "app": "test"
    },
    "name": "pytorch-test",
    "namespace": "kube-test",
    "resourceVersion": "72519846",
    "selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/pytorchjobs/pytorch-test",
    "uid": "c6e548f1-adfe-11e9-ba3a-b44326d0c915"
  },
  "spec": {
    "pytorchReplicaSpecs": {
      "Master": {
        "replicas": 1,
        "restartPolicy": "Never",
        "template": {
          "spec": {
            "containers": [
              {
                "args": [
                  "--backend",
                  "gloo"
                ],
                "command": [
                  "python",
                  "/var/mnist.py"
                ],
                "image": "gcr.io/ml-org:20202/gcs/pytorch-cpu:v1",
                "name": "pytorch",
                "resources": {
                  "limits": {
                    "cpu": 2,
                    "memory": "4Gi"
                  },
                  "requests": {
                    "cpu": 2,
                    "memory": "4Gi"
                  }
                }
              }
            ]
          },
          "imagePullSecrets": [
            {
              "name": "imagepull-secret"
            }
          ]
        }
      },
      "Worker": {
        "replicas": 1,
        "restartPolicy": "OnFailure",
        "template": {
          "spec": {
```

```
"containers": [
  {
    "args": [
      "--backend",
      "gloo"
    ],
    "command": [
      "python",
      "/var/mnist.py"
    ],
    "image": "**:*:215:20202/gcs/pytorch-cpu:v1",
    "name": "pytorch",
    "resources": {
      "limits": {
        "cpu": 2,
        "memory": "4Gi"
      },
      "requests": {
        "cpu": 2,
        "memory": "4Gi"
      }
    }
  }
],
"imagePullSecrets": [
  {
    "name": "imagepull-secret"
  }
]
},
"ttlSecondsAfterFinished": 3000
},
"status": {
  "conditions": [
    {
      "lastTransitionTime": "2019-07-24T10:36:26Z",
      "lastUpdateTime": "2019-07-24T10:36:26Z",
      "message": "PyTorchJob pytorch-test is created.",
      "reason": "PyTorchJobCreated",
      "status": "True",
      "type": "Created"
    }
  ],
  "replicaStatuses": {
    "Master": {}
  },
  "startTime": "2019-07-24T10:36:26Z"
}
}
```

## Response

### Response parameters

For the description about response parameters, see [Table 6-286](#).

### Example response

```
{
  "apiVersion": "kubeflow.org/v1",
  "kind": "PyTorchJob",
  "metadata": {
    "creationTimestamp": "2019-07-24T10:35:38Z",
    "generation": 2,
    "labels": {
      "app": "test"
    }
  }
}
```



```
},
"name": "pytorch-test",
"namespace": "kube-test",
"resourceVersion": "72519846",
"selfLink": "/apis/kubeflow.org/v1/namespaces/kube-test/pytorchjobs/pytorch-test",
"uid": "c6e548f1-adfe-11e9-ba3a-b44326d0c915"
},
"spec": {
  "pytorchReplicaSpecs": {
    "Master": {
      "replicas": 1,
      "restartPolicy": "Never",
      "template": {
        "spec": {
          "containers": [
            {
              "args": [
                "--backend",
                "gloo"
              ],
              "command": [
                "python",
                "/var/mnist.py"
              ],
              "image": "**.*.215:20202/gcs/pytorch-cpu:v1",
              "name": "pytorch",
              "resources": {
                "limits": {
                  "cpu": 2,
                  "memory": "4Gi"
                },
                "requests": {
                  "cpu": 2,
                  "memory": "4Gi"
                }
              }
            }
          ]
        }
      },
      "imagePullSecrets": [
        {
          "name": "imagepull-secret"
        }
      ]
    }
  },
  "Worker": {
    "replicas": 1,
    "restartPolicy": "OnFailure",
    "template": {
      "spec": {
        "containers": [
          {
            "args": [
              "--backend",
              "gloo"
            ],
            "command": [
              "python",
              "/var/mnist.py"
            ],
            "image": "**.*.215:20202/gcs/pytorch-cpu:v1",
            "name": "pytorch",
            "resources": {
              "limits": {
                "cpu": 2,
                "memory": "4Gi"
              },
              "requests": {
```

```

        "cpu": 2,
        "memory": "4Gi"
      }
    ],
    "imagePullSecrets": [
      {
        "name": "imagepull-secret"
      }
    ]
  }
},
"ttlSecondsAfterFinished": 3000
},
"status": {
  "conditions": [
    {
      "lastTransitionTime": "2019-07-24T10:36:26Z",
      "lastUpdateTime": "2019-07-24T10:36:26Z",
      "message": "PyTorchJob pytorch-test is created.",
      "reason": "PyTorchJobCreated",
      "status": "True",
      "type": "Created"
    }
  ],
  "replicaStatuses": {
    "Master": {}
  },
  "startTime": "2019-07-24T10:36:26Z"
}
}

```

## Status Code

**Table 9-75** Status codes

Status Code	Description
200	OK
201	Created
401	Unauthorized
400	BadRequest
500	Internal Error
403	Forbidden

# A Change History

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Release Date	Description
2022-06-30	This issue is the first official release.